SATURDAY, JULY 15, 1871.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON TWO CASES OF ALBUMINOID DISEASE OF THE KIDNEY,

WITH REMARKS ON THE PROPER APPLICATION OF THE TESTS FOR THE DETECTION OF ALBUMEN IN THE URINE.

BY JAMES H. HUTCHINSON, M.D.,

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GENTLEMEN: I shall bring before you this morning two cases illustrating a form of Bright's disease which, if I may judge from my own experience, is very common, for during each term that I have served as Attending Physician to this Hospital I have had under my care two or three patients affected with it. Its prominent features, however, do not seem to be so thoroughly familiar to students, or even to physicians, as they ought to be. I allude to the form in which the kidneys, usually in common with the other viscera, have undergone the albuminoid degeneration.

Before reading the notes of the cases, it may be well to remind you that the kidneys are composed essentially of three elements: 1, the secreting tubules; 2, the interstitial tissue; and, 3, the blood-vessels. Now, a morbid process may affect either one of these tissues alone, and may remain fixed in it throughout its whole course, or it is possible that a diseased condition which has originated in one may subsequently invade one or both of the others. As the symptoms presented in cases of disease of the kidneys depend, to a certain extent at least, upon the elements involved in it, there should, as a general rule, be no difficulty in determining the seat of the lesion; but to do this it is necessary not merely to obtain an accurate history of the case under consideration and a detail of the symptoms which it presents, but also to subject the urine to careful microscopical and chemical examination. The microscopical examination must of necessity be made elsewhere; but I propose to show you the chemical tests for determining the presence or absence of albumen in the urine. These chemical tests are very accurate if carefully applied, but if carelessly used they may lead you into the mistake of declaring that no albumen is present in urine in which it exists in large amount, or vice versa.

Case I.—P. M., æt. 16, born in Ireland, factory-hand, was admitted March 1, 1871.

He states that his parents were both healthy,—his father having been drowned while he was yet young, and his mother being still alive. Of ten children, his brother and himself are the only survivors. He can tell us very little in regard to his brothers and sisters, except that they died at a very early age and before his parents came to this country. His health seems to have been excellent until his eleventh year. At this time, however, "lumps" formed at the angles of the jaw, over the junction of the clavicle with the sternum, in both groins, and in the left axillary region. These lumps, he says, after a varying period of time, softened, ruptured, and discharged their contents, cicatrization taking place after, in some instances, a prolonged suppuration. His legs began to swell two months ago.

On admission, the lower extremities are œdematous, the left most markedly so, possibly in consequence of the greater number of cicatrices in the inguinal region of that side causing an obstruction to the venous circulation. There is œdema of the penis and scrotum. The abdomen is somewhat distended; no ascites, however, can be detected. In the left lumbar region there is a sinus, from which is discharged a small quantity of thin pus. There is no enlargement of either liver or spleen. The teeth are well formed, and there is no evidence that the patient has ever had interstitial keratitis. No disease of the lungs or heart. The urine is nearly normal in quantity, acid in reaction, has a specific gravity of 1013, and throws down a precipitate upon the application of heat and nitric acid. The microscopical examination shows the presence of a large number of hyaline casts, containing very few cells and scattered oil globules.

At the present time the boy's condition is not so good as when admitted. The dropsy has invaded all parts of his body, and pitting is now very readily produced over the sternum. Moreover, the dropsy persists, and has increased in spite of a tolerably free secretion of urine.*

Case II.—E. T., æt. 31, single, Irish, seaman, admitted March 17, 1871. Has no hereditary tendency to disease. His father died at 68. His mother is still living, and is healthy. Two brothers died young, but he has two sisters alive, both of them healthy. His own health he says was good previous to 1867, at which time he had an attack of acute articular rheumatism. In 1867 he also contracted syphilis, and in 1868 had secondary symptoms. Large cicatrices, three inches in diameter, on the anterior surface of the legs, mark the situation of ulcers which occurred about this time. These ulcers remained open for some time, during which a large amount of pus was discharged from them. He did not place himself under the care of a physician, but put himself on a treatment recommended by his friends.

In 1869 he had repeated attacks of sore throat, and at about the same time lost nearly all his hair, which, however, soon grew again. His legs began to swell March 2, 1871, after exposure about a week previously to wet and cold. The œdema has been increasing ever since.

On admission, his legs, thighs, and scrotum are very œdematous, the latter being quite as large as a child's head at term. There are cicatrices on the anterior surfaces of both legs, and also on the right forearm and the left knee. Smaller scars are also to be seen on the crown of the head and on the forehead, all of them resulting from ulceration dependent most probably upon constitutional syphilis.

The proper tests showed the presence of a large amount of albumen in the urine, estimated at about one-tenth. Whole quantity of urine passed in twenty-four hours, thirty-five ounces. Reaction acid. No tube-casts seen when the urine was examined under the microscope. A few leucocytes were, however, to be seen, in some instances grouped together.

Ordered Basham's Mixture and good diet.

March 23.—He has been passing a very small amount of urine lately. Ordered an infusion of scoparium.

March 26.—One hundred and forty-six ounces of urine, by actual measurement, were passed during the last twenty-four hours.

April 11.—The dropsy has very much diminished, in consequence of the increased flow of urine which has been kept up to the present time. Amount passed during last twenty-four hours, sixty-seven ounces; very albuminous. Reaction acid. Specific gravity 1013. The urine deposits, upon standing, a scanty white sediment. Microscopical appearances the same as those already noted. No tube-casts have ever been seen.

I shall now proceed to demonstrate that the urine really does contain albumen. There are, as you are aware, two tests for the detection of this substance in the urine; neither of them, however, should be relied upon to the exclusion of the other. One consists in the application of heat to the urine; the other, in the addition of nitric acid to it. It should, however, be recollected that the phosphates are also thrown down by heat, and that uric acid is precipitated by nitric acid; but the uric acid is dissolved by boiling, and the phosphates by the acid. These are sources of error with

*This case having already been reported in this journal, in the Proceedings of the Pathological Society, its history is compressed as much as possible.

which you are doubtless familiar; there are others, however, not quite so well known, which have been recently pointed out by Beale. These are,—first, that albumen is soluble in urine to which too little acid has been added; and, secondly, that it is soluble in urine into which too much acid has been poured. Thus, if I allow a single drop of acid to fall into this test-tube containing urine, a precipitate will fall, which will instantly be dissolved upon shaking the tube. In the same way, if I add a large amount of acid to the urine, the copious deposit which at first falls will afterwards disappear. You may well ask me, what is the value of a test which may fail to detect the presence of albumen under two circumstances which are so likely to happen? The test, notwithstanding this, is valuable, and with proper care even small amounts of albumen may be detected by it. The proper application of the test is as follows: About a drachm of urine should be placed in a test-tube, and, while this is held in a slanting position, about fifteen drops of nitric acid should be allowed to trickle along its side. This, of course, being of greater specific gravity than the urine, will go to the bottom, and coagulation of the albumen will take place just at the line of junction of the two liquids. You see this dense white precipitate in the position where I told you it should be. I will also call your attention to an appearance of the precipitate which is characteristic. I refer to the sharply-defined borders which it possesses. Had the urates been in excess in this specimen of urine, and had uric acid been thrown down by the acids, the precipitate would have occupied a higher position in the liquid, and its upper border would not have been so sharply defined as you see that it is in the present instance; in fact, it would have presented rather a shreddy appearance. The test by heat requires fewer precautions in its application. Before having recourse to it, however, it is well to satisfy yourselves that the urine is acid in reaction, as heat will not coagulate albumen in alkaline urine. Apply the heat to the upper part of the liquid; the precipitate is then readily detected, as the urine below remains unchanged. The precipitate which is now thrown down I believe to be albumen. I will, however, add to it a few drops of acetic acid. The acid has no effect upon it, which shows that it certainly is not composed of the phosphates, as these are soluble in the acid, and demonstrates almost positively, when taken in connection with the results of the other test, that the urine contains albumen.

The amount of albumen in the urine may be estimated approximatively by allowing the precipitate thrown down by heat to settle to the bottom. This was done in both the cases on their admission into the hospital, and in both the precipitate was estimated at from one-eighth to one-tenth of the bulk of the urine.

These cases have certain features in common. Thus, in both of them dropsy, accompanied by an albuminous condition of the urine,—which is in one case not diminished in amount, and in the other is very much increased,—is a very prominent symptom. Their histories present also a point of some interest, and that is the long-continued suppuration which preceded the appearance of the dropsy. In the first case, you will recollect, there was a discharge from various parts of the body, in consequence, probably, of scrofulous disease of the lymphatic glands; in the second, it was kept up by syphilitic ulceration. Now, both of these—1, the persistence of dropsy while the secretion of urine continues free, and, 2, the long-continued suppuration which preceded its appearance—are capital points in the diagnosis of this form of disease of the kidney. It is a popular opinion, held also to a certain extent by the profession, that diseases of the kidney giving rise to dropsy are almost invariably accompanied by a diminished flow of urine, the effusion into the cellular tissue of various parts of the body being simply dependent upon the increased pressure within the blood-vessels caused by the diminished excretion of water. Without, however, denying that the dropsy may be thus explained in some cases, it is obvious that there are others which do not admit of this solution, and in which another explanation must be sought. In the beginning of my lecture I drew attention to the fact that the symptoms presented by diseases of the kidneys varied very much, and were, to a certain extent at least, dependent upon the tissue principally involved. In the cases before you, I believe that the vessels are principally involved, and I will state as briefly as possible my reasons for thinking so.

In the first place, the history favors this view. In the majority of the reported cases of albuminoid disease—and these are examples of that form—there has been at some time or other in their course more or less profuse suppuration. In the second place, the persistence of the anasarca, notwithstanding the large amount of urine voided, points in the same direction, and indicates that the coats of the blood-vessels, not merely in the kidneys, but in every part of the body, have undergone a degeneration which allows their liquid contents to pass more readily through them than in health. In the third place, the chemical and microscopical examination of the urine, especially the latter, is also in favor of this view. In one case—the second—the appearances under the microscope are not quite so definite as I should like to find them, but in the first they are almost diagnostic. It will be remembered that large numbers of very pale hyaline casts were seen; these casts are almost free from cells, and most of them are free from oil. I am, of course, aware that in some cases even of the acute form of Bright's disease the urine may contain hyaline casts, but it never does so without containing at the same time a much larger number of epithelial casts. The small amount of oil present in the casts shows the presence of commencing fatty degeneration of the epithelium of the uriniferous tubules, but does not indicate that this is the principal lesion in the kidney. It is scarcely probable that in patients of the ages of these two the disease is of the variety which is generally called cirrhosis of the kidney,—a diagnosis which, moreover, is not borne out by the symptoms.

I have not time to go fully into the differential diagnosis of this affection. In the second case, it is true, there is a history of an acute commencement after exposure to wet and cold; but I am inclined to think that this is only the apparent commencement, and that disease of the kidney has been latent for some time. I believe, therefore, that tubular nephritis exists in the case only as a complication.

I have pointed out the importance in a diagnostic point of view of the history of long-continued suppuration in both of these cases. The frequency of antecedent suppuration was, I believe, first pointed out by Dr. Dickinson, of London, who has based a very ingenious theory upon it, which is substantially as follows: Pus contains the alkaline salts in relatively larger quantity than the blood, and, consequently, profuse suppuration cannot long continue without inducing an alteration in the chemical composition of the blood, and, as a necessary consequence, in that of the tissues; and this, moreover, he thinks he has demonstrated, for he says that an analysis of any organ affected with albuminoid disease will always show that it is deficient in the alkaline salts. Corroborative of this view is certainly the action of iodine upon parts diseased in this way. In a healthy organ, as you are aware, the brown stain left by the application of Lugol's solution immediately passes into yellow, but in the diseased it remains permanently brown in those parts in which the degen-

eration is most marked, unless soda or potassa be afterwards applied, when the same reaction as in health occurs.

I am not quite prepared to accept Dr. Dickinson's explanation of this apparent connection between long-continued suppuration and albuminoid degeneration. I may say, however, that the same association has occurred in all the cases I have ever had the opportunity of observing.

In regard to the prognosis, I think the cases differ. In neither case is there a prospect of a cure being effected, but in the second there is great probability that life may be prolonged for some years. It is most likely that the disease has not advanced very far, and that the dropsical symptoms which were at the date of admission prominent were due in large part to the intercurrent nephritis which I believe to have been present. A moderate amount of albuminoid disease of the kidney or of any other organ is quite compatible with comfort and even continuance of life for some years; for I have had cases under observation in which the disease has lasted for at least five years. In Case I. the prognosis is much more unfavorable. The increasing dropsy, the evidences of effusion into the serous cavities, and of œdema of the lungs, all point towards a speedy termination of the case, and I should not be surprised at the death of the boy in the course of a few days.

The treatment of these cases differs from that usually employed in other forms of Bright's disease. There is, of course, no indication to increase the flow of urine, for it is already sufficiently free, and the dropsy which is present depends simply upon the condition of the coats of the blood-vessels, which allows the ready passage of serum through them. The indication is rather to endeavor to prevent the loss of albumen: and with this view I shall prescribe for both of these patients ten grains of gallic acid, four times daily, and for the older one, since he has a syphilitic history, ten grains of iodide of potassium, also three times daily. Of course good diet has been ordered for both of them. In the case of the boy we have a troublesome symptom to contend with, to which I believe I have not alluded. I refer to gastric irritability. This may be relieved in many cases by the use of lime-water, or by hydrocyanic acid and morphia, but in many cases it resists every remedy, and, by the vomiting it induces, undoubtedly hastens the fatal issue, especially when diarrhœa exists at the same time,—a coincidence which is by no means infrequent in cases similar to these. These symptoms depend probably upon the disease of the blood-vessels of the stomach and intestines.

ORIGINAL COMMUNICATIONS.

MEDICAL NOTES.

No. II.

BY JAMES E REEVES, M.D.,

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II.—Diphtheria.

It would be a most difficult task to describe minutely the various phases of treatment which have been employed for the cure of diphtheria since its advent in 1857. At first, experimentation and great uncertainty constituted the rule and result of all attempts at treatment, and very many indeed were the missteps which were made before any degree of rational progress had been reached. In fact, so many errors were committed in treatment that now, in looking back over the field, I believe I do not misrepresent the truth when I say it is quite probable that much of the fatality of the disease during the years of its first appearance was directly owing to bad treatment,—purgatives, mercurialization, the indiscriminate use of caustics, pustulation with tartar emetic and croton-oil blisters!

I am very sure I shall never forget the barbarous use of a blister in a case of diphtheria which I witnessed in 1860, in the practice of a village physician of considerable pretensions,—a veritable M.D. The patient was a girl, fourteen years of age. The parotid and submaxillary glands were early engorged; the tonsils, uvula, and velum palati were red and swollen, and on the second day of the disease these parts were extensively dotted with patches of false membrane; and by the fourth day the fauces were completely involved, and the patient was in great jeopardy. I was now invited by the attending physician to see the case, and heard with surprise his proposition to blister the throat with a cantharides plaster. He hoped "by making the *outside* sore that the *inside* would get better." I tried to dissuade him from such practice, by explaining the tendency of abraded surfaces, howsoever and whensoever produced, to become speedily affected with diphtheritic exudation, and offered as a further reminder the fact that, independently of this danger, there was no evidence on record of blisters having been used to the relief of the patient. He insisted, however, that the blister should be applied,—that "the throat *must* be made sore from ear to ear." The more surely and quickly to accomplish his wish of "drawing the disease to the outside," as soon as the blister was raised he tore off the cuticle, and, by means of the *swab* used for cleansing the throat, actually plastered the raw surface with the poisonous secretions which the patient had expelled into the spittoon! In four hours from the date of this reprehensible performance the entire blistered surface was thickly coated with the characteristic deposit, and twelve hours later the patient was dead!

At the present time there is great unanimity among well-informed physicians concerning the treatment of diphtheria. The successful plan embraces both local and constitutional means, which, of course, must be varied in activity to suit the case; and thus suiting the treatment to the condition,—giving the patient the benefit of hygienic as well as medical treatment,—my own experience warrants me in declaring that there is no other equally dangerous disease more manageable, or which in a given number of cases more often result in recovery. The following plan I can confidently recommend to my readers:

1. Cleanliness. To diminish the media of infection, the body- and bed-clothing should be changed daily. The sick-room should be bare of unnecessary furniture, and especially of drapery, and, if possible, have an open fireplace, and a fire burning on the hearth or in the grate, if the weather is too cool to have the doors and windows thrown constantly open. There is not the least danger of "catching cold" in bed, if the patient is well clothed. Segregation of the sick is absolutely indispensable, and the bed should be so situated that the fresh air from out-of-doors may blow over it and thoroughly dilute the foul air of the room.

2. Feed the patient, allowing beefsteaks and animal broths and soups, boiled milk, with gruels, jellies,—any kind of nutritious food the appetite craves, including ice-creams, etc. When food can no longer be taken by the stomach, nutritive enemata—beef-juice, etc.—must be employed. These are usually well retained after one or two efforts at this mode of feeding.

3. For drink, ice-water in small quantity at a time, or, if there be much redness and swelling about the fauces, pounded ice in teaspoonful doses, iced milk, and stock ale *ad libitum*. The ale not only relieves the uncomfortable feeling in the throat and improves diffi-

cult deglutition, but exhilarates the patient and gives support generally.

4. The success of the medical treatment depends very much upon its being begun early. If the bowels are constipated, they should be opened by the citrate of magnesia or other simple laxative. If, on the contrary, diarrhœa is present, then from three to thirty grains of the subnitrate of bismuth (according to the age of the patient), with prepared chalk and a few drops of strong tincture of cinnamon, should be given every three or six hours.

5. If the case has been ushered in with nausea and vomiting, and these troublesome symptoms continue, either a dose of the simple aromatic spirits of ammonia, or from five drops to a half-teaspoonful of "chloroform paregoric (℞ Chloroform., Tinct. Opii, Spirit. Camphoræ, Spirit. Ammon. Aromat., āā, fʒjss; Creasoti, gtt. iij; Olei Cinnamom., gtt. vij; Alcohol., fʒij; M.) in a tablespoonful of ice-water, should be administered every half-hour. If constipation exist at the same time, a stimulating enema should be employed.

6. If the glands are much involved, and the throat is hot and swollen, a warm wet cloth, folded on a piece of oiled silk, should be applied around the neck, and this method of local bathing and sweating continued without intermission until the symptoms are controlled or entirely give way.

7. Experience has abundantly satisfied me that the use of strong caustics is not advisable,—that in numerous instances they aggravate all the symptoms, and thus greatly endanger the patient. The tinctura ferri chloridi may be applied in full strength to the diphtheritic patches and to the surface around their borders, by means of a camel's-hair pencil; but even this practice I have generally abandoned during the last five or six years, and now content myself with gargles or the atomized spray of the chlorine and iron mixture (℞ Potass. Chlorat., ʒij; Acid. Hydrochloric. puri, ʒjss; Aquæ, ʒvij; Tinct. Ferri Chloridi, ʒi; M.) every hour or two when the patient is awake. At the same time this mixture may be internally administered, in the dose of from twenty drops to a teaspoonful, with or without a little simple syrup, every two or three hours, with the addition, if need be, of sulphate of quinia. Warm atomized inhalations of the chlorine and iron mixture, according to the above formula, promise, I think, the greatest hope in cases of diphtheritic croup.

It is remarkable how little complaint is made, especially by children, of sore throat, even when the attack is of a serious character; and for that reason the exudation is frequently overlooked by the parents until it is pointed out to them by the physician. It is not every patch, however, seen in the throat that is diphtheritic,—very far from it, indeed; and it may be charged that physicians are not always sufficiently careful in making the diagnosis to discriminate between the *true* and the *false* deposit.

8. Besides chlorine, iron, and quinia, diphtheria frequently requires alcoholic stimulants, administered with a bold hand, to sustain the flagging powers of life. We must not wait for symptoms of collapse before commencing the free use of wine and milk-punch. In no disease is there greater tolerance of wine and of the stronger alcoholic preparations than in diphtheria, and the guide to the amount in which these are to be employed is their effect in each case.

9. During the advanced stage of the disease the patient is in danger of fatal syncope, and should therefore be carefully guarded against physical exertion or sudden change to the erect posture. In other words, keep the patient quietly in bed.

10. The uncertainty of convalescence should not be forgotten. This period may be protracted for many weeks after the throat is entirely clear of the deposit. In cases of paralysis of the soft palate, the danger of choking should be constantly borne in mind. I have known one patient to die suddenly at the table from an attempt to swallow solid food. Should the paralysis involve the limbs, and vision also become imperfect, iron, quinia, strychnia, and *patience* will be required.

To quiet nervous restlessness, both during the course of the disease and the period of convalescence, bromide of potassium is worthy of the highest confidence.

(To be continued.)

A CASE OF TRAUMATIC TETANUS.

BY R. H. JOHNSON, M.D.,

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M. R., æt. 23, of nervo-sanguine temperament, a partner with his father in a wholesale and retail bakery and confectionery establishment in this city, had three fingers of his left hand caught under a drop-knife on the 10th of February, 1871. The flesh of the first phalanges of the little and ring fingers was almost wholly cut off without injury to the bones. The middle finger was cut transversely through the first joint, being held only by a little skin at the back. I immediately placed the edges of the wounds in apposition, and united them with annealed silver thread, but applied no dressing whatever to them, hoping in this way to obtain union by the first intention. This subsequently took place. The pain and hemorrhage ceased in a short time, and he returned home feeling quite comfortable. No undue inflammation resulted—no erysipelatous indications, and no pain—up to the 21st, eleven days from the date of injury.

On the morning of the 21st, feeling well, with my consent he took the morning train for Dayton. He stopped at Hamilton to transact some business, drank a glass or two of beer, and proceeded in the next train to Dayton. Late in the day he felt a little stiffness about the jaws, and could not open his mouth so wide as usual. Fearing lockjaw, he immediately returned home, and reached my office at eleven o'clock the same evening. He came in heated from fast walking, and expressed his fears of lockjaw. I endeavored to laugh his fears away, telling him he had taken a little cold, but ordered hydrate chloral, ʒj, to ʒiv simple syrup, and sent him home to bed. He left in a perfectly calm state of mind, and on the following morning returned in the same condition, neither better nor worse. Two hours after, I was summoned to see him, the messenger saying he was worse and in bed. My patient had undoubted *tetanus*. I ordered cupping, hot bath, belladonna plaster to spine, and continued the chloral. There was no opisthotonos, no fever, perspiration, or pain. Slight difficulty of deglutition on attempting to swallow fluids and remedies existed, but not the slightest apprehension. He talked calmly and cheerfully, and even laughed heartily. The jaws had become a little more closed, though not at all painful.

At my evening visit, found deglutition more difficult and somewhat painful. He felt better since the hot bath. Trismus was not complete, but well marked. There was no spasmodic action of the tongue, though there were slight spasms of the voluntary muscles, with commencing opisthotonos.

On the following morning Dr. Bettman was called in consultation, when to the treatment were added calomel and opium. The malady had meantime slowly but surely progressed, and now the opisthotonos was considerable, deglutition difficult and painful, with slight spasms, and pain at the epigastrium; the abdominal muscles and diaphragm were extremely tense and unyielding; in short, all the terrible phenomena of tetanus, except, as yet, convulsions, were in full force.

At my midday visit I ordered tobacco-leaves to be softened in hot water and applied over the whole abdomen.

At 4 P.M., Dr. George C. Blackman was called to meet Dr. Bettman and myself. We ordered extract calabar bean, the physostigma venenosum, gr. viij, in ʒj glycerine, ten drops every three hours, and continued the use of calomel and opium.

At my night visit I ordered a large hot poultice of poppy-heads to the abdomen, instead of tobacco, and continued the other treatment.

The following morning, 23d, was called early to see the patient, and at nine o'clock met Drs. Charles Woodward and Bettman in consultation. Continued the physostigma in alternation with the calomel and opium.

At 4 P.M., met again Drs. Woodward and Bettman. All the symptoms were aggravated, and, though there were no indications of convulsions, it was evident the patient was failing hourly; he could swallow only with great difficulty.

At 11 P.M., the patient was chloroformed by inhalation, but was kept under its influence a few moments only.

At midnight, but for the spasms of the muscles of the throat on attempting to drink, no one to look at or converse with him would have thought anything serious the matter. Opisthotonos very slight. There were no pain and no spasms of the abdominal muscles, which had become considerably relaxed. He talked rationally and calmly; said to his father, who was holding a spoon containing ten drops of chloroform in water which I had just ordered, "Father, you will spill that medicine." He then took the spoon at my request, and attempted to swallow the contents, when, in an instant, he went into the most frightful convulsion I had ever seen, which continued about ten minutes. On recovering, and the mouth being cleared of foam, he addressed me in a long sentence, but no one could understand a word he said. He did not seem exhausted, but he had not fully recovered power of speech. It being now 1 A.M., 24th, I returned home. Calling early, I was informed that the patient died at half-past one o'clock,—half an hour after I left him,—without another convulsion, sinking quietly, and with his last breath clearly articulating, "*Ich bin gestorben*," (I am dying!)

I am decidedly of the opinion that the physostigma venenosum in this case exhibited its power in relaxing the abdominal and all the voluntary muscles, which were previously unyielding and hard as a board; also, perhaps, in causing the almost entire subsidence of the opisthotonos. This so far disappeared as to give the patient no inconvenience, and he could sit up straight in bed. Finally, it may also have been instrumental in averting the convulsions until the moment when, at my request, he attempted to swallow the chloroform.

Dr. J. F. Meigs, of Philadelphia, in a clinical lecture delivered in the Pennsylvania Hospital, September 11, 1869, on a case of hydrophobia, eulogizes the calabar bean in both these incurable maladies, tetanus and hydrophobia, as follows:

"Knowing that ether and chloroform and all the various narcotics have been repeatedly tried in vain in these cases, I determined to continue the calabar bean, the physostigma venenosum, which has been found in the last few years so useful in tetanus."

May it not be possible that had the physostigma been given in my case in larger doses, or by subcutaneous injection, the power of the remedy would have been more marked? Dr. Meigs, in his lecture and report of the case of hydrophobia above alluded to, says,

"On admission he was rational, but with a wild excited manner. Ordered one-half grain of extract of calabar bean, by the stomach, every three hours. Took four doses of the extract."

Finally, the following remarks of the same lecturer appear equally applicable to the case just reported:

"Nevertheless, gentlemen, it seems to me that the quiet and ease which this poor fellow experienced during the last sixteen hours of his life were owing to the action of the bean upon his nervous system. It had done for him what it had done for a considerable number of cases of tetanus,—it had unlocked the rigid contraction of the voluntary muscles; and we may hope that in some future case a more exact knowledge of the precisely accurate method of using this powerful and wonderful agent may yet enable us to master this most intractable and fatal disease."

FOREIGN BODY IN THE RIGHT BRONCHUS.

BY LORENZO HUBBARD, M.D.,

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C. S., Co. A, 1st U. S. Cavalry, stationed at this post, called at the Post Hospital about a month ago, and stated that while playing with a *dime*, by throwing it up and catching it in his mouth, to please a child, he had accidentally drawn it into the windpipe. Supposing he was mistaken, I examined him critically as to the circumstances and present symptoms, and tried to convince him that the coin had found its way into the stomach. Nevertheless, he insisted that it was in the right lung, and that he could feel it resting nearly under the right nipple, and, moreover, on making a strong expiratory effort he could raise the coin to the glottis, where it was arrested by the distressing sense of strangulation to which it gave rise.

On applying the ear to the chest, the gurgling occasioned by the lifting of the coin when the air was forced past it in expiration was distinctly recognized, and also a grating sound, probably produced by the friction of the coin rising and falling in the bronchus during respiration.

Being satisfied that the coin was actually in the bronchus, and being convinced of his ability to disengage it at will from its resting-place, which was probably at the bifurcation of the bronchi, we determined to endeavor, if possible, to place it beyond his power to resist by any voluntary effort its passage into the fauces. To accomplish this, small doses of ipecac, repeated every ten minutes, were ordered to be given until slight vomiting should be produced, in the hope that the nausea preceding would induce a spasmodic expiration, and that in this effort the coin would be thrown out.

In this I was not disappointed; the very first effort at emesis was attended with a violent spasmodic cough and expiration, which caused the offending coin to be expelled from the bronchus, and to be thrown to the floor at a distance of several feet from the patient.

Judging from this case, it is not unlikely the "nickel coin" in the case reported by Dr. Baldwin, in the number of the *Medical Times* for April 1, was actually lodged in the bronchus, as first suggested, where it remained until the irritation, though apparently slight, was sufficient to induce a sudden spasmodic action of the lung, during which it was discharged.

Had the child been able to express as fully all the symptoms and circumstances as was Mr. S., probably there would have been no doubt as to the diagnosis of the case.

The history of these two cases proves quite conclusively that foreign bodies may remain in the bronchus at least, and possibly in the bronchial ramifications, for an indefinite period, without producing any very serious manifestations.

SUPERNUMERARY LITTLE FINGERS.

BY J. ROTHROCK, M.D.,

Wilkesbarre, Pa.

EXTRA digits are by no means a rarity. When removed, they sometimes show a wonderful pertinacity in growing again. Darwin instances one case in which they were amputated three times, and, for aught we know to the contrary, the power of reproduction was not even then exhausted.

Recently I was called to see a male colored child three months old. It was the unlucky owner of two supernumerary little fingers, the two terminal phalanges of which, with the joint connecting them, were perfect. The nails, even, were faultless. These supernumerary fingers were attached by a delicate pedicle about one-eighth of an inch long and one-sixteenth thick to the skin over the middle of the outer side of the proximal phalanx of each little finger. On snipping them off

with my scissors, the bright arterial hemorrhage which followed showed that they were well nourished; in fact, the pedicle was simply made up of vessels and skin. The other child of the same parents had one supernumerary little finger, similar in location and in all other respects to those removed.

Mrs. T., a sister of the mother of these children, was born with a similar extra digit. She was the only one in a family of ten that evinced any tendency to polydactylism: yet two of her five children had each a supernumerary little finger. Neither of the fathers had any malformation, nor can the tendency be traced farther back than Mrs. T. In all these cases the remaining fingers and the toes were regular and normal. Hence the tendency to antero-posterior symmetrical malformation did not exist, or at least was latent. Little fingers were the only "sportive" element in the anatomy of the family. The whole subject is mysterious, so far as its active cause is concerned, but strangest of all is the fact that in the second generation the tendency seemed to have acquired fresh strength, for Mrs. T. and *two* of her five children each had one, while her niece and nephew (the only children of her sister who had the usual number of fingers) both had extra digits, and one of them had two. We are not yet ready to accept Mr. Darwin's explanation of these facts,—*i.e.* that it is a case "of reversion to an enormously remote, lowly organized, and multidigitate progenitor."

Prof. B. G. Wilder, of Cornell University, has written some able articles upon this subject.

NOTES OF HOSPITAL PRACTICE.

JEFFERSON MEDICAL COLLEGE.

SURGICAL CLINIC OF PROF. GROSS, MAY 27, 1871.

Reported by Dr. Ralph M. Townsend.

SYNOVITIS OF THE FOOT.

A. D. has been the possessor of a painful and swollen foot since last October, and an examination reveals the fact that the continual aching and throbbing are due to an inflammation of the extensive synovial apparatus connected with the tibio-tarsal articulation. She is forty-five years of age, and, although she states she never was sick, looks poor and emaciated.

There is no fluctuation, but marked thickening and distention of those parts of the sac where there is the least resistance. In these cases the swelling is generally greatest from the malleoli backwards towards the tendo-Achillis.

The treatment ordered was the application of cantharidal collodion, to be thickly painted with a camel's-hair brush over the whole articulation. The foot was then enveloped in flannel, wrung out of hot water, and covered with oiled silk. By such means the professor hoped to secure not only counter-irritation and vesication, but, by the bursting of the little vesicles, depletion also.

In a few days, pressure by means of the roller-bandage, from the toes up, will be applied; but meanwhile the foot must be kept in an easy, elevated, and relaxed position. This woman was also ordered to take twenty-five drops of the muriated tincture of iron and one-twelfth of a grain of the corrosive chloride of mercury, three times daily.

ENLARGED LYMPHATIC GLANDS.

W. M. has lumps in his throat, which he ascribes to taking Helmbold's Buchu! He is twenty-six years of age. Some pain exists in these swellings. His parents are healthy. The presence of decayed teeth in his lower jaw might account for these swellings, which are evidently enlarged lymphatic glands; but his lower teeth are sound, though some bad ones exist in his upper jaw.

The question of scrofula comes up in connection with this case; but it is not a necessary condition, as suppression of the cutaneous perspiration, disordered digestion, bad teeth, etc., may all bring about enlargement of these glands.

The first thing to be done with this patient is to regulate his diet; the second, to impress him with the importance of cleanliness to a swelling of this kind. Regarding the first, his diet should be nutritious, but perfectly plain and simple: hot water and bread being especially interdicted as the prolific cause of acidity and indigestion. Secondly, as a local application, hot water and soap, by their cleansing action, etc., are recommended. The following prescription was also given:

℞.—Ung. Hydrarg. Biniodid., ʒj;
Cerat. Simp., ℥ss.

M. et ft. unguent.

S.—Rub, night and morning, on the enlarged glands, a piece the size of a pea.

He will also take every fourth night, until his tongue becomes clean, the following pill:

℞.—Mass. Hydrarg., gr. iij;
Pulv. Jalap., gr. ij;
Pulv. Ipecac., gr. j.

TRAUMATIC ANEURISM OF THE POSTERIOR TIBIAL ARTERY—LIGATION.

D. W., an oysterman, aged 34 years, from Chincoteague Island, Va., while hauling a seine, nineteen years ago, was wounded in the calf of the leg by a fish known as the sting-aree, or sting-bull (Trachinus draco), which, with its spinous rays, inflicts painful wounds. The flow of blood following the wound was profuse. The hemorrhage, however, stopped under the application of a tobacco-quid and pressure; but he was afterwards confined to his bed for three months. The cicatrix, as large as a five-cent piece, is still plainly visible at the lower limit of the tumor. After this attack he seemed to recover entirely, and pursued his usual vocation of a fisherman up to last October. At that time he was chasing some hogs through the woods, and jumped a fence: his alighting upon the ground was immediately followed by a stinging sensation. Soon after the present tumor was noticed, which has been a source of continual pain since its appearance.

This tumor commences three inches above the inner malleolus, and extends four inches up the leg, involving its posterior surface, and being distinctly marked along its outer contour. There is distinct pulsation here, synchronous with the contraction of the left ventricle of the heart. There is an indescribable sawing or whirring sound within the tumor. The case must therefore be one of aneurism of the posterior tibial artery. Pressure on the femoral artery stops pulsation in the tumor; but the pulsation reappears with the removal of the pressure. The tumor is circumscribed and not diffused, a condition which commonly attends traumatic aneurism.

The history of this case is singular. If the original cause was the fish-sting, the absence of extravasation can be explained only by supposing that the wound in the artery had cicatrized and that the cicatrix had been subsequently ruptured by the jump. It is difficult to imagine, however, why ulcerative action has not set in before this. The overlying structures here are in a state of attenuation, and if this pulsation be allowed to progress, ulceration will take place, and the life of the man may be endangered. Operative procedures here might consist—

1. In the application of the tourniquet to the upper part of the thigh, compressing the femoral artery in Scarpa's triangle, and then incising the tumor, turning out its contents, and ligating the artery above and below the sac. Sometimes a part of the tumor may be dissected out. In the present instance, Prof. Gross stated he did not think he could so control the hemorrhage as to make the operation an entirely unobjectionable one.

2. The artery might be ligated in Scarpa's triangle, and in this way the formation of an occluding coagulum be invited. This is the Hunterian operation, and was suggested in the latter part of the last century for the relief of a popliteal aneurism. Four ligatures were applied, one being tied tightly, and the other three held loosely in reserve. The latter part of this operation has now become obsolete, one ligature sufficing.

3. Instrumental compression, as suggested by the Dublin surgeons, by means of the clamp, properly covered, might be made use of, the pressure being gentle and intermittent.

4. Digital compression. The lecturer stated he had cured an aneurism of the superficial femoral artery in this way in a colored woman from Delaware. The first pressure was continued for thirty-six hours, but, the pulsation recurring, it was again continued for ten hours, and then the patient made an excellent recovery. Prof. Gross also stated that he had cured popliteal aneurism by forced flexion, the only position in which the present patient finds relief from his pain.

May 31.—This patient was again brought before the class. Since Saturday, forced flexion of the leg, with a gum-elastic ball placed in the popliteal space, has been tried, but it did not answer very well; and, as the weather is hot and the man's time valuable, the procedure was abandoned for the purpose of tying the posterior tibial to-day.

The plan of Mr. Guthrie, a celebrated army surgeon,—now dead,—was to cut through the calf-muscles directly down upon the artery. The objection to this operation is the extent or length of the incision, when the calf-muscles are thick, in order to get room to work when the surgeon comes down upon the artery. The advantages of this operation are,—first, the artery is more directly approached; and, secondly, there is less danger of bagging if blood and pus are poured out.

In tying the posterior tibial, there are to be avoided the internal saphenous vein and the venæ comites.

[The operation in the present case consisted in making an incision about four inches in length along the inner border of the tibia. The edge of the gastrocnemius muscle was then lifted up and the fibres of the soleus divided, by which procedure the posterior layer of the aponeurosis of the leg was brought into view. The free and careful division of the latter exposed the artery, surrounded by the venæ comites, which were of unusual size, the artery itself being also enlarged.

The immediate effect of the ligation was to arrest the pulsation in the body of the tumor,—a slight pulsation being still perceptible over the former cicatrix.

The parts were brought together by four interrupted sutures and supported by adhesive strips and a roller applied from the toes up.—R. M. T.]

INHERITED SYPHILIS OF ALÆ OF NOSE, SIMULATING EPITHELIOMA.

T. M., aged 11 years, has a mass of granulations upon the end of the nose. In January last he suffered from sore eyes, and the nose commencing to inflame, a "blind medium" gave him something to rub on it, which caused ulceration.

He has scars on his forehead and the bridge of his nose, and his central incisor teeth are concave and undergoing progressive caries. There is no pain or bleeding in the nose, but there is a very offensive discharge. The boy has constant headache,—particularly at night. The ulcer is covered with a greenish-yellow scab, which gives the granulations the appearance of a section of cauliflower stuck upon the end of the nose.

To get rid of the scab, a poultice was ordered. Internally this patient was ordered two grains of the iodide of potassium and one-fifteenth of a grain of the corrosive chloride of mercury, in solution, three times daily.

May 31.—This patient's nose was better in a marked degree. The scab had all come away, and the granulations were touched with a solution consisting of one part of the acid nitrate of mercury to fifteen parts of water. The application produced some pain.

The boy still complained of headache.

UNIVERSITY OF PENNSYLVANIA.

CLINIC OF PROF. AGNEW, MAY 24, 1871.

Reported by Dr. Elliott Richardson.

CONVERGENT STRABISMUS.

THE patient, a little girl ten years of age, was the subject of this deformity in a marked degree. Prof. Agnew stated that the affection is frequently due to defective refraction or accommodation of the eye. Examination had been made in this case, and slight myopia found to exist; but on a close examination a deposit of lymph could be seen on the cornea of one eye directly in the line of vision, the result of keratitis following an attack of measles six or eight years ago. This, the lecturer stated, is also a frequent cause of strabismus, produced by efforts of the recti muscles to remove the opaque spot from the visual line. In this case both causes seemed to have acted, and he thought it questionable whether an operation would be followed by permanent good results.

As both internal recti appeared to be implicated, they were both divided. Compresses were then applied, and directed to be retained for forty-eight hours, to prevent œdematous swelling, otherwise apt to occur. At the end of this time they should be removed, for if longer retained they might prove injurious.

POPLITEAL ANEURISMS.

The patient was a man forty-one years of age, of American birth, a ship-carpenter, rather spare, but of good muscular development, dark complexion, and until within two years he has enjoyed excellent health.

Both parents are living, and no history of hereditary disease could be detected.

About two years ago, while working at his trade, he felt weakness in his knees, which he at first thought to be rheumatism, but on putting his hands down he felt a lump in each popliteal space.

On exposing the left leg, a prominence was seen occupying the popliteal space immediately behind the knee-joint and extending below it, measuring a little over four inches in length. This tumor moved with each pulsation of the popliteal artery, and was situated directly in the line of this vessel. When pressure was made upon the artery above this enlargement, the motion ceased, and on pressing upon the tumor it diminished in size. When, however, pressure was made upon the artery below this growth, it increased in size, became more tense, and the pulsations were more forcible. Auscultation revealed the presence of the "aneurismal murmur."

Occupying a corresponding position in the right leg, another tumor was seen, of the same character, but not larger than a walnut. These, from the patient's own account, came at the same time, that in the left limb growing more rapidly than the other. Prof. Agnew, in the course of his remarks, said that aneurism is usually due to atheromatous disease of the coats of the arteries, by which the resistance of the arterial walls is diminished, and on some sudden effort they yield to the force of pulsation; that it is limited by either one, two, or three arterial coats, or, in cases where all these are ruptured, by a structure the result of inflammatory deposit in the connective tissue surrounding the seat of disease. Internally the sac is lined with several successive concentric layers of fibrinous deposit, enclosing a red jelly-like clot, which is probably the result of post-mortem coagulation.

He then detailed the various methods which had been at different times applied for the cure of this disease, and said that the theories of all these were based upon the efforts of Nature towards a cure, which are sometimes sufficient, unaided by human means, to accomplish an obliteration of the sac by inflammatory changes.

Of these methods, the most highly-esteemed at the present time are the ligation of the artery on the cardiac side of the aneurism, far enough from the seat of disease to secure sound arterial tissue (Hunter's), and the use of moderate compression of the artery above the aneurism, partially cutting off the supply of blood to the tumor.

Prof. Agnew said that in the present case he would try the latter method, making compression by means of Bellingham's compressor. The patient's bowels should be opened the day before; the leg should then be carefully bandaged from the toes up, and two instruments should be applied,—one at the apex of Scarpa's triangle, and the other just below Poupart's ligament,—for the purpose of making alternate compression at the two points as often as the uneasiness of the patient should require it. The artery should not be entirely closed. Anodynes should be given when the patient becomes restless under the pain and restraint of this treatment. If the instruments become unbearable, resort should be had to digital pressure. Under this treatment a cure may be looked for in two or three days, but it may be delayed for six or seven days.

June 7.—Treatment was commenced Thursday, May 25, at 11 A.M., by means of Bellingham's compressors, and continued without interruption until Saturday at 12 M., when digital compression was substituted, on account of the uneasiness with which the compressors were borne, and the difficulty in keeping up a uniform degree of pressure with them.

By Sunday morning, at five o'clock, pulsation in the tumor had entirely ceased. Opium was pretty freely administered during this treatment, and good food, with some stimulants, towards the latter part of the time, as the loss of sleep from the constant pain and necessary disturbance to which he was subjected weakened him considerably.

Compression of the right femoral was commenced at 4 P.M. Wednesday, May 31, digital compression only being used; and by 12 o'clock that night no pulsation could be detected in the aneurism, but the treatment was continued twenty-four hours longer as a precautionary measure.

The result in both cases has been very satisfactory.

The total duration of compression of the left femoral was sixty-five hours; that of the right femoral, thirty-two hours.

Much lancinating pain in the course of the arteries was experienced during the establishment of the collateral circulation, which commenced soon after compression was applied.

The enlarged arteries about the knees are now plainly seen beating beneath the tissues. The circumference of the left knee over the aneurism now measures 14⅛ inches; original measurement, 15½ inches. Circumference of the right knee, 13½ inches; original measurement, 13⅞ inches.

The man has been walking about for the past day or two, and is this day discharged from the ward.

The following is a list of those gentlemen, members of the University Class of 1870–71, who generously offered their services in the treatment of this case, and to whose intelligent care and patient efforts the very satisfactory result is in a great measure due:

Messrs. Valdivieso, Estrazulas, Longenecker, Ranck, Rea, McElvie, Sewell, Platt, Keating, Guiteras, Bruen, Yocomb, Huston, I. Smith, J. F. Smith, Healey, Slifer, Weldon, Parke, Bowen, Birney, Bradway, Irish, and Dr. Davidson.

The following gentlemen also assisted in the treatment of the aneurism in the right popliteal space:

Messrs. Keating, Guiteras, Rea, Bruen, Weldon, Huston, Ranck, Platt, Sewell, Valdivieso, Estrazulas, and Longenecker.

CORRESPONDENCE.

DOUBLE MONSTERS.

To the Editor of the Medical Times.

In your issue of June 15, page 332, I have read a very good description of the "Ohio twins," as they have been called, with observations on the general subject of double monsters, and references to several cases similar to the one under consideration.

Dr. Goodell has in this very interesting clinical lecture paid me a handsome compliment by referring to my papers on the subject of double malformations (*Diploteratology*, *Trans. Med. Soc. of the State of New York*, 1865, 1866, 1867, 1868), from which source he states that he has obtained most of the materials of his lecture. This communication is written to correct a few errors in regard to the number and character of the cases found reported in the literature of this special group of double developments.

Dr. Goodell says that I have, in the Transactions above referred to, given details of "*four* such cases, each one exactly similar to the specimen before you, with the single exception of the twist on its axis of the fused limb. A *fifth* is reported and illustrated by Ambrose Paré (*Les Œuvres, etc.*, Lyon, 1652, p. 652). The wood-cut of a *sixth* is given by Ulysses Aldrovandus (*Monstrorum Historia*, Bononiæ, 1642, p. 646). For a knowledge of the *seventh* I am indebted to the courtesy of Dr. Louis S. Stillé. . . . Just before entering this room, Prof. Joseph Leidy informed me that an *eighth* was born in Ireland: it lived a week, and was, after death, sold to the College of Surgeons in Dublin (*Todd's Cyclopædia of Anatomy and Physiology*, vol. ii. p. 317, fig. 146). The same gentleman also tells me that Rokitansky (*Lehrbuch d. Pathol. Anatomie*, 3d ed., p. 321, fig. 7) gives the figure of a similar case, but does not state where it occurred."

Now, in order to display correctly the literature of the group of duplex development to which the Ohio case belongs, it will be necessary to revise the above statement.

In my systematic essay upon Diploteratology, which for want of leisure still remains unfinished (two hundred pages of text and thirty-three lithographic plates, containing one hundred and twenty-six figures, is all that has thus far been published), I have described sixteen cases which belong to the same generic group as the Ohio case,—viz., *Ischiopagus*. The group is divided into the complete or symmetrical and the incomplete or non-symmetrical forms. The symmetrical ischiopagus is characterized by the union of two entire fœtuses in such a manner that their pelves form a common ring or basin, the right pubic bone of one individual forming a junction with the left of the other, and *vice versa* on the opposite side. The common axis of the symphyses pubes is at right angles to the common vertebral axis. The heads are situated at the distal extremities of the longitudinal axis of the compound body; the abdomens are fused; single umbilicus and funis; one bladder; two rectums; two sets of genitals; four pectoral and four pelvic extremities; vital organs normal and independent.

I have given details of eight cases (*Trans. Med. Soc. of the State of New York*, 1866, p. 242 *et seq.*) of symmetrical ischiopagi, differing from the Ohio case only in having four legs instead of three,—viz., Cases 25, 26, 27, 28, 29, 31, 32, 33, and 34. Dr. Goodell's *eighth* case, of which he was informed by Prof. Leidy, is the same as my Case No. 25, taken from Dr. Montgomery's article "On Double Monsters" (*Dublin Quarterly Journ. of Med. Sci.*, vol. xv., 1853, p. 263, pl. 1, fig. 2). Dr. M. states, in concluding his account of the case, "I may observe that this case is taken by Prof. Vrolik as the type of a class, 'Inferior Duplicity,' and the figure of it in my article 'Fœtus,' in the *Cyclopædia of Anatomy and Physiology*, vol. ii., fig. 146, is referred to by him as an illustration." In describing the skeleton, he refers to the Catalogue of the Museum of the Royal College of Surgeons of Ireland, vol. i. p. 148. Thus it appears that Dr. Goodell's eighth case will be found in my essay, and is one of the eight cases of *four-legged* ischiopagous children therein described.

The non-symmetrical forms of ischiopagus are divided into specific groups according to the development of the pelvic extremities. Those having three legs, one of which is always a compound limb, resulting from the fusion of two, are described under the title of *Ischiopagus tripus;* of this form I have given details of *four* cases,—viz., 35 to 38.

Dr. Goodell's *fifth* case, for which he refers to the works of Ambrose Paré, will be found cited in the *N. Y. State Med. Transactions*, p. 262, under the head of "Literature of Ischiopagus" (A. Paré, *Les Œuvres*, Paris, 1575, fol., p. 809). The bibliography of this group, notwithstanding the titles are as much abbreviated as possible, occupies the greater part of this page.

The *sixth* case referred to by Dr. Goodell, of which he says a wood-cut is given by Aldrovandus (*Monstrorum Historia*, Bononiæ, 1642, p. 646), is copied from a wood-cut in Lycosthenes (*Prodigiorum ac Ostentorum Chronicon*, etc., Basileæ, 1557, p. 619). It is also copied by Licetus (*De Monstris*, 3d edition, Amsterdam, 1665, p. 113). I have translated a brief account of it, which will be found under Case 38 (p. 254 of *Transactions*), being one of the *four* cases with which Dr. G. credits me.

As far as my knowledge extends, the Ohio case is the only one of *Ischiopagus tripus* which has ever occurred on the continent of America, which fact renders it peculiarly interesting.

There is a form of non-symmetrical ischiopagus in which two legs only are developed, both being on the same side of the double body,—of course, anatomically. Each individual has one pelvic extremity, the single rectum, urethra, bladder, and genitals being joint stock, each member of the dual corporation having furnished fifty per cent. of the material in the organization of the company. This form I have designated *Ischiopagus dipus*, and I have described two cases of it,—viz., 39 and 40.

There is still another form, in which but one individual is fully developed, to the pelvis of which either a pair of legs, or a single fused leg, with double genitals, are attached. This form is denominated *Ischiopagus dipygus*, of which I have given two cases,—one human (Case 41), and one animal (Case 42).

Since the publication of that part of my essay relating to the generic group Ischiopagus, I have had an opportunity of making a personal inspection of a case of the kind, in a human female infant several months old, born in Millville, Tenn., and exhibited in New York City in 1868. Two well-developed additional lower limbs were attached to the pelvis of the child. Between the natural limb and the supernumerary one, on either side, were to be seen well-developed female genitals. I saw it urinate from both sides, beginning and ending at the same instant. There was but one anus and one bladder.

This case has been published in many medical journals, among which I will mention *The Richmond and Louisville Medical Journal*, July, 1868, *The Cincinnati Medical Repertory*, July, 1868, p. 202, and *New York Medical Journal*, October, 1868, vol. viii. p. 102.

The *seventh* case of ischiopagus, pointed out by Dr. Stillé, has escaped my notice. I have not seen an account of it in any of the numerous works which I have consulted, and therefore cannot feel warranted in placing it with the three-legged group before seeing either a figure or a description of it.

The case pointed out by Prof. Leidy, in the "Pathological Anatomy" of Rokitansky, may be a mere *typical* form, selected from either of the authorities above cited; and since Dr. Goodell says Prof. Rokitansky "does not state where it occurred," this would seem the most probable view of the case, corresponding with the Irish case, belonging to the Dublin College, selected by Prof. Vrolik as a typical form in his article "Double Monsters" in the "Cyclopædia of Anatomy and Physiology," and which Drs. Leidy and Goodell have both been misled in regarding as an additional case to those described in my work.

The greatest care is required in all bibliographical and statistical investigations relating to medical subjects, and especially when a period of several centuries is to be explored, in order that the same statement, case, or figure referred to or repeated in different works may not be mistaken for so many different cases. Having had some experience and much perplexity in this sort of work, and on this very subject, for many years past, I have written this note to assist all who are interested in obtaining the correct literature of this form of malformation.

The subject of double monsters is an extensive one, and requires a volume to treat it in a satisfactory manner. I have already transcended the limits proposed in this note, which is written in a kindly spirit, and with the hope that the subject will in future be regarded by the profession as less trivial than heretofore.

G. J. Fisher, M.D.

Sing Sing, N.Y., June 19, 1871.

Belladonna Poisoning; Recovery under the Use of Opium.—Dr. Oxley, of the Liverpool Infirmary for Children, reports the following case in the *British Medical Journal*, May 20, 1871:

A child, aged 7, took by mistake f℥j of liniment containing ℥j of powdered belladonna to f℥j of menstruum. She was seen eight hours afterwards. She had violent delirium; occasional fits of laughter; continual agitation of body; her pulse was rapid, weak, intermittent; pupils widely dilated, insensible to light; conjunctiva congested; mouth and fauces parched; speech indistinct. Treatment,—two doses of gr. x each of sulphate of zinc, given twenty minutes apart, produced emesis. ♏vii tinct. of opium were given at 7.30, 9, and 11 A.M., and at 1 P.M. ♏x. Half an hour afterwards she became quieter, and the pupils were perceptibly smaller. At 4 P.M., ♏x were again given. She slept from 6 to 8½ P.M., when the opium was repeated; the pupils were still widely dilated, and the other symptoms but slightly improved. In a short time she vomited, fell asleep at 9.30, and slept till morning, with the exception of an hour and a half, during which she was awake and partially conscious. In the morning she was perfectly sensible; ate heartily; pupils somewhat dilated. She was discharged on the third day, perfectly well.

Mr. Paget (*Lancet*, June, 1871, p. 777), in speaking of the influence of constitutional over morbid manifestations, says:

"No disease is so specific but that its signs may be confused or complicated with the things that are peculiar to the patient. Syphilis is a specific disease as sharply defined as any, but its course and appearance in a scrofulous man and in a gouty one are very different. Vaccination produces a well-marked specific disease; but in one patient it may be followed by inflammation of lymphatics, in another by eczema, in another by anything you please. But all these are due in only a minor degree to vaccination; they come out from the personal constitutions of the several patients disturbed by the vaccination, as they might have been by anything else producing some slight fever. This is not a mere question of doctrinal pathology. It is among the first necessities for success in practice that in the total phenomena of a disease observed in any patient you should be able to estimate what belongs to the disease and what to the man."

Chorea Treated with Strychnia.—In a severe case of chorea, reported by Dr. Hayden (*Brit. Med. Jour.*, May 20, 1871), the patient, a girl twelve years of age, took the one-twentieth of a grain of strychnia in mixture three times a day. This treatment was continued until slight rigidity of the muscles at the back of the neck was observable, with the effect of moderating the contortions of the shoulders and trunk. She was afterwards put on half-drachm doses of the syrup of the triple phosphate (strychnia, quinia, and iron) three times a day. This produced the most beneficial results. A recovery was effected in about six weeks,—not a long time, when the severity of the case is taken into consideration.

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SATURDAY, JULY 15, 1871.

EDITORIAL.

THE MEDICAL LIBRARY OF THE PENNSYLVANIA HOSPITAL.

TWENTY years ago, the history of the Pennsylvania Hospital was narrated by one of the most honored representatives of the medical profession, at the most interesting period of its career, when it was just entering upon the second century of its usefulness.* It is not, therefore, our purpose now to dwell upon its charitable and beneficial characteristics, except in so far as they are connected with a sketch of the rise and progress of the library. We should have found it a task of considerable magnitude to trace the growth of the latter during a period of one hundred and ten years (1762 to 1871), carrying us back into the days of our colonial history, about fourteen years before the declaration of our national independence, but for the excellent state of preservation of the minutes of the Board of Managers, and the valuable assistance imparted by a copious alphabetical index of these minutes during the first half-century of the existence of the Hospital. Unfortunately, this index has been discontinued for nearly seventy years past. The Hospital itself was instituted in 1751, but eleven years elapsed before the gift of a single volume laid the corner-stone of the future library, Mr. William Logan, one of the Managers, on his return from Europe in July, 1762, bringing with him a recently-issued work on Materia Medica, by William Lewis, F.R.S.,—"a present to this Hospital by Dr. John Fothergill, for the benefit of the young students in physic who may attend under the direction of the physicians." Dr. F. was an early and steadfast friend of the institution, and during this same month contributed a number of framed anatomical views, models, etc., valued at £350. These were used to illustrate Dr. Shippen's anatomical lectures, and the name of the generous donor is therefore associated with the earliest study and teaching of anatomy in this country. This collection, as well as that of some curious anatomical waxwork purchased from the estate of Dr. Abraham Chovet in 1793 by life-annuity to his daughter of £30 (sterling),—the sum paid on this account amounting in all to $2658.88,—though seemingly unconnected with the history of the library, are incidentally mentioned here, more particularly "as the anatomical museum of which they laid the foundation was long connected with the library and drew its subsequent increase from the same fund."†

The subject of charging a fee for the admission of students to the privileges of the Hospital is interesting from its connection with the history of the foundation of the medical library. It was the custom in those days—up to 1821—to intrust the duties at present exercised by the Resident Physician to Apprentices,—in other words, medical students who resided within the hospital. The regulations adopted in 1763 required a fee from all students in attendance, except, of course, the apprentices; but the matter being first referred to the Attending Physicians, the latter, in a report signed by Drs. Thomas Bond, Thomas Cadwalader, Phineas Bond, and Cadwalader Evans, recommended that each student should pay six pistoles as a gratuity for that privilege. "And further," say these gentlemen, "as the custom of most of the hospitals in Great Britain has given such gratuities to the physicians and surgeons attending them, we think it properly belongs to us to appropriate the money arising from thence, and propose to apply it to the founding a medical library in the said hospital,"—which proposition was acceded to. The expenditures from the "medical fund" thus created and annually increased from this source are, it is presumable, still devoted to the purposes of the library.

In 1767, there were presented from the medical library of the late Dr. Lloyd Zachary forty-three volumes, and from that of the late Dr. Benjamin Morris, by his sister Deborah Morris, fifty-five volumes,—the latter the medical portion of a valuable collection of works procured by him while residing abroad. In October, 1770, two quarto volumes on Materia Medica were received from England, having been "transmitted by our friend Benjamin Franklin at the request of our worthy benefactor, Dr. John Fothergill, as a present from him." The Hospital seems to have had, almost from the outset, valuable assistance from friends and contributors in Great Britain. A continuance of the same kind influences in behalf of our local sick was again invoked in July, 1774, by direct appeal of a committee, addressed to William Strahan, of London, at the time of sending for a supply of medical works, which they were anxious to obtain before the winter. "This we are very desirous of, as the young students who from the neighboring provinces attend the lectures of the several professors in our medical schools may then have the benefit of reading them a year sooner than they can if they should not arrive here before the next spring." The "trunk of books" was received in December, and the gentleman addressed evidently took as a hint the statement of the committee that the Hos-

* An Address on the Occasion of the Centennial Celebration of the Founding of the Pennsylvania Hospital, delivered June 10, 1851, by Geo. B. Wood, M.D. Philadelphia, 1851.

† Sketch of the History of the Medical Library of the Pennsylvania Hospital. By William G. Malin, Librarian. Philadelphia, 1829. The writer of this article is also indebted to this gentleman, at present the efficient Steward, as well as to Mr. Alexander D. Stockton, Librarian, for facilities and courtesies extended in its preparation.

pital "funds fall short some hundred pounds yearly of discharging our common expenses," for the books, valued at about a hundred pounds, appear to have been presented by him.

"The throes of the approaching Revolution," says Mr. Malin, "began now to be felt; and although, amidst the all-absorbing political excitement and convulsions which followed, the Managers continued an unremitting care to the main objects of the institution, it is not surprising that for some years no addition of importance was made to the library. At some periods, indeed, particularly during the years 1776-77-78, and during the depreciation in the value of continental money, it required great exertions to preserve the institution from total ruin. In the fourteen years between 1774 and 1787 inclusive, only ten volumes and a pamphlet were added to the library. The first order for books transmitted to London after the close of the Revolutionary War was dated June 30, 1786." One work purchased during the war, Cullen's First Lines of the Practice of Physic, cost, in 1780, the apparently extravagant sum of £135 5*s*. This was at a time when there was an enormous depreciation of the currency, and was really equal only to the inconsiderable amount of £1 15*s*. specie.

While the catalogue was in preparation in 1788, several volumes were found to be missing, and Samuel Coates was desired to advertise for them in Hall & Sellers' Gazette, and to request the persons in whose possession they were to return them. The Apothecary, who evidently acted as the Librarian in those days, was ordered under no pretence to loan a book without taking a note or sufficient deposit. The first systematic "Rules" for the use and preservation of the library were adopted in December, 1789; and it was at the same time determined that a catalogue should be printed, "under the inspection of Joseph Paschall and Bartholomew Wistar, who are requested to accept of the assistance of Drs. Rush and Parke, who offer their services in this business." This, the first catalogue, was issued in the spring of 1790, a copy being given gratis to each officer, Dr. Lettsom, and Dr. Redman, President of the College of Physicians, the students being each charged an eighth of a dollar for the same. The number of volumes embraced in it was 528. We learn from Mr. Malin's sketch, that "in the years 1787, 1788, 1789, and 1790, the amount paid for books was £266 5*s*. 11*d*., and the total expenditure in their purchase from the foundation of the library to the close of the official year (May) 1790 was £332 8*s*. 7¾*d*., or $886.48."

During 1790, the aid of the celebrated Dr. Lettsom was solicited by the Managers of the Hospital in the selection of works for the library abroad. He subsequently contributed many valuable medical books, and seemed anxious that "the library should contain a good proportion of the works of ancient as well as modern authors, and that they should be consulted by at least the writing portion of the profession."

In October, 1791, it was determined that, in addition to the facilities extended to its own officers, the President of the College of Physicians for the time being should be entitled to the use of the books.

Drs. Parke, Shippen, and Wistar were appointed, in January, 1794, a committee to report a plan for the better regulation of the library and the preservation of the anatomical specimens, but their report was not entered upon the minutes. In February, Jos. Paschall and Dr. Parke were appointed to prepare a catalogue of the new books, which was printed in August. The apprentices must at this time have had charge of the library, for we find Dr. Thomas Horsfield, one of these resident medical officers, who was about to leave the institution, called upon to give a list of the books missing from the library; and, still later, several of these gentlemen paid out of their own pockets for a few missing volumes, for the care of which they were held responsible.

The Managers, in March, 1800, resolved to petition Congress to exempt public libraries from the payment of import duties on books; but the petition was not offered, as Congress had in the mean time decided the question negatively. The library was removed during this year into the new room, specially prepared for it, on the first floor of the centre building, there not being room for it in the four cases it already occupied, and Drs. Parke and Barton were appointed the Committee of Arrangement. The library became in time so extensive that it not only filled the apartment designed for it, but also crept into the entry, and even invaded the domain of the Apothecary. This condition of affairs continued until 1847, when it was removed to its present commodious quarters on the second floor.

The only important donation of books during the year 1800 was received from Sarah Zane, who had come into possession of a large miscellaneous and medical library, the latter of which, including many rare books, she gave to the Hospital. It consisted of ninety-one quartos, twenty-three folios, twenty-two duodecimos, and six octavos. "It is curious to remark," says Mr. Malin, "the relative proportion of the several sizes, particularly as these works were nearly all published in the sixteenth and seventeenth centuries, and may perhaps be taken as a tolerably fair average of the form assumed by the medical literature of those times."

On every occasion when the care of the library was transferred from one apprentice to another, formal action was taken upon it by the Board of Managers. Each new acting Librarian was required to receipt for all the books, etc., a list of the missing volumes was prepared, and two of the Managers were appointed to superintend the transfer. It was quite a common—indeed, almost a universal—occurrence for the apprentices to be charged on leaving with the value of a large number of missing books. The records are full of such entries as "List of books lost before Dr. —— took charge of the library;" "Books lost under the care of Dr. ——," etc. Indeed, at one time it was ordered that the medical library be closed, to give the apprentice the opportunity "to stay a few days in the city, and devote time to collect all that are out," and to make a list of the books

still missing, fifty copies of which list were to be distributed among the physicians and pupils, and one copy inserted in the public newspapers. In another place we read that the library is not to be opened until further orders, "as John Moore, who is appointed Librarian, must examine the books before he gives a receipt for them," fifty volumes being then missing, though many of these were afterwards recovered. In addition to such duty, the rules stipulated that "the apprentice acting for the time being as Librarian shall bleed, cup, and leech; he shall also dress wounds, and assist the senior apprentice in dressing fractures."

It may be interesting, now that the system of medical apprenticeship has been abolished for so many years, to refer briefly to the terms under which such an officer was received. He was to bring with him a single feather-bed, which he was to leave in the house, to serve five years, and give two sufficient securities to pay at the rate of a hundred pounds per annum for every day that he absented himself without leave from the Managers, to fill up his time in study, "to look for no indulgence by leave to attend parties of pleasure or places of amusement, nor to be abroad in the evening; nor will it be considered for his benefit to receive visits at home, none of these things making any part of the views of careful parents or friends in placing him, nor the Managers in receiving him, as apprentice." He was allowed two seasons—selected by the Managers—out of the five, to attend medical lectures, "always observing to return home as soon as each lecture shall be over." These reminiscences of those who for so many years had the responsible care of the library seem appropriate in a sketch of its history.

In 1806, a new catalogue—the first according to authors—was printed, under the superintendence of Zaccheus Collins and Richard Wistar, a committee of the Board of Managers, who were empowered to call to their assistance one or more of the physicians. Dr. Thomas Parke was selected, but Dr. Joseph Hartshorne, at that time an apprentice, is known to have had the chief labor of its compilation intrusted to him.

Nothing of interest occurred in connection with the library until 1816, when a committee was appointed to confer with the physicians, with authority to purchase such books from the library of the late Dr. Benjamin Smith Barton as they deemed desirable. The medical portion was found to be mainly composed of duplicates of books already in possession of the Hospital, but those on Natural History and Botany were purchased at a cost of nearly twenty-eight hundred dollars. During this year nearly £400 sterling were invested in the importation of books. In 1818, the second part of the catalogue was issued. In 1822, the first "Committee to have charge of the Library" was appointed, who were requested to associate with them Drs. James and Hewson in its care and superintendence. In 1823, over four hundred dollars were expended in the purchase of sundry books and instruments,—the effects of Dr. William Price; and a vote of thanks was passed to Dr. Parke, who had acted as purveyor to the library, £600 sterling having been at various times placed in his hands for the purchase of books.

The Library Committee was instructed in 1824 to remove such bookcases as were in the room on the second floor, so as to appropriate that chamber to the use of the Lying-in Department. In March of this year, Mr. William Gunn Malin was appointed Clerk, to whose duties those of Librarian were added the following year, continuing in this dual capacity until 1840, when he was appointed Steward,—in all of which positions he has faithfully and conscientiously labored for the best interests of the Hospital. In 1827, a committee was appointed to inquire the price, etc. of Mascagni's plates, but, as they were valued at five hundred and nineteen dollars, it was decided not to purchase them. In 1829, a new catalogue was prepared by the Librarian, with which was incorporated a "Sketch of the History of the Medical Library," by the same reliable authority. The latter publication gave so much satisfaction that one thousand extra copies were printed the following year. The catalogue numbered 5823 volumes, and a supplement to it was published in 1836.

Dr. Louis, of Paris, received, in 1833, the thanks of the Managers for valuable aid afforded by him in the selection of books. In 1837, the South Sea Surveying and Exploring Expedition, as it is called upon the minutes, though generally known as the United States Exploring Expedition, made application for certain books on Comparative Anatomy and Natural History, which the Library Committee were authorized to sell them, as it was found they could be replaced by sending to Europe. In 1841, the numerical strength of the library was slightly diminished by the transference of certain books on diseases of the mind and on general literature to the Hospital for the Insane, then, as now, under the able management of Dr. Kirkbride. Dr. Charles D. Meigs, being about to leave for Europe in the spring of 1845, was authorized by the Managers to purchase, during his absence, works for the library at a cost of not more than three hundred dollars.

The increasing number of books rendered it indispensable, in 1847, that additional accommodations should be provided for them. In a special report of the Library Committee on this subject, they state that "the existing bookcases are all full, and there is obviously no space for more, either in the present library-room or in the apothecary-shop or hall. The committee therefore recommend that the partitions in the late female medical ward in the second story of the centre building be removed, and that it be suitably fitted up for the reception of the medical library. A fine room will thus be obtained, of convenient size, light, airy, and in all respects well adapted to the purpose. It will also serve for the Managers' room, and the present library may then be used exclusively for the office." Such is the present arrangement; but the old cases still remain in the office for other useful purposes, with the quaint staircase winding up in one corner, invisible until the doors of the case are opened. The alterations for the new library were at once effected, the physicians and

surgeons agreeing that the expense should be defrayed from the medical fund; and the library was removed to the second floor early the next year, the Managers meeting there for the first time in June.

In 1852, Mr. George Ord presented one hundred and six volumes on Natural History and Medicine, chiefly standard works, and in 1861 a valuable ornithological work, by C. J. Temminck, which, when bound, constituted five folio volumes, with colored plates.

The Library Committee was authorized in 1855 to employ a suitable person to prepare a catalogue; and this labor was very faithfully and effectively performed by Dr. Emil Fischer, the catalogue embracing seven hundred and fifty pages, being exceedingly valuable for reference. A supplement to this, by August F. Müller, at that time the Librarian, was published in 1867, during which year also a resolution was adopted charging three dollars per annum to physicians and students for the use of the library. As in the earlier days of its history the museum was connected with the library, so also for a number of years past an anatomical and pathological museum has been annexed to it, under the charge of the same committee. The library grows quietly but slowly, scarcely ever receiving a donation, and yet the cases are now so crowded that several hundred volumes have been removed to another part of the building. The fee for life-privileges of the use of the library and attendance on the practice of the house is twenty-five dollars.

From the time of its passing out of the hands of the Apothecaries and Apprentices, the library has been under the care of several Librarians, almost all of whom have also acted as Clerks. These, mentioned in order of sequence, are as follows: William G. Malin, 1824–1840; William R. Clapp, 1840–1849; William H. Gobrecht, M.D., 1849–1850; Joshua Whitall, M.D., 1851–1852; William A. Dobbyn, 1853–1857; David T. Lewis, M.D., 1857–1861; Richard Randolph, Jr., 1861–1863; Joshua P. Edge, 1863–1865; August F. Müller, 1865–1867; and Alexander D. Stockton, the present incumbent, since that time. During portions of 1850, 1851, 1853, and 1854, temporary appointments were made by the Library Committee.

The two great libraries of the Pennsylvania Hospital and the College of Physicians would, if combined, form a very remarkable literary collection, embracing works in every department of medical literature and the kindred sciences. A comparison of the library catalogues of the two institutions exhibits a surprising absence of duplication; indeed, so many works are found in the one that have no place in the other, that these fine libraries, which in their aggregate sum up over twenty-seven thousand volumes, may be said to supplement each other. If any action looking to their consolidation should ever take place, Philadelphia would possess a magnificent library, far surpassing in value and resources that of any other cisatlantic city, which would be the pride of the profession. The Hospital library has never yet accomplished its full measure of usefulness; it is comparatively buried, its privileges actually enjoyed by but few, and its merits neither popularly known nor deservedly appreciated. It now embraces fully twelve thousand volumes, and there is not a department of medical science that is not illustrated in it; but the rules prescribe that it shall be open only three times a week for an hour at a time. It is principally used by the officers of the house, and only occasionally by the profession at large, although, as we have seen, founded and sustained by the unselfish relinquishment of fees by medical men.

THE MEDICAL LIBRARY OF THE PHILADELPHIA HOSPITAL.

ABOUT nine years ago, Dr. D. Hayes Agnew, in a lecture on "The Medical History of the Philadelphia Almshouse," gave many interesting particulars in regard to the library connected with the Hospital. From this we learn that the subject was first agitated for legislative aid in 1805, and that in 1808 a room was assigned for the library and the first expenditure for books made. The senior student was subsequently appointed Librarian, rules were adopted, money appropriated during several years out of the receipt for house pupils, and life-privileges granted for the use of the library at thirty dollars. In 1816, the Apothecary also became the Librarian, and a catalogue was prepared, estimated by Dr. McClellan, in 1818, to number one thousand and twenty-two volumes. In 1827, Dr. Horner presented one hundred and twenty foreign theses. Dr. E. F. Rivinus, one of the Resident Physicians, compiled a catalogue in 1831, which seems to be the only one ever printed, and which proved this library to be especially rich in ancient medicine and surgery. In 1836, the "United States Exploring Expedition" offered to purchase, at a large advance over the cost price, several important works belonging to the Hospital; but the offer was refused. The sale of clinical tickets enabled the medical board to add many books to the library, which soon numbered over three thousand volumes. The present aggregate probably varies but little from this total, for, although an annual appropriation of two hundred and fifty dollars has been made for several years past, we learn from Dr. Agnew's sketch that the library "has been plundered, by the vandalism to which it has been exposed, of much valuable matter." Dr. C. Pendleton Tutt was for several years Librarian, and was succeeded after his death in 1866 by Dr. J. L. Ludlow, the present Librarian, whose duties seem to be rather directed to the purchase and general supervision of the books, the giving out of these being intrusted to a reliable resident pauper.

The nuclei of other libraries may be found in several of our medical institutions; but none of them have as yet risen to such importance as to deserve special mention, though hereafter they may become of historic interest. A large number of medical works may also be found in our extensive miscellaneous libraries, as the Mercantile and the Philadelphia; the former con-

taining about one thousand medical volumes, and the latter, in the main library and in its Loganian collection, several thousand volumes of very choice old medical books of the sixteenth, seventeenth, and eighteenth centuries. It seems unfortunate that such literary medical gems are not placed where they might be better known and appreciated.

THE VOTE OF THE PHILADELPHIA DELEGATION.

OUR correspondent R. M. T. writes us as follows:

"Permit me to make a more perfect record of the vote of the Philadelphia delegation on the question of rescinding *the woman resolution* than that which appeared in my Williamsport letter in the last number of the *Times*. Drs. Atlee, Boker, Drysdale, Lee, and Sargent voted to rescind. Drs. Cohen, Hellyer, and Turnbull were absent or did not vote. Drs. Gross, Atkinson, Ash, Bolles, Bunn, Baldwin, Evans, Fish, Fricke, Hatfield, Hinkle, Landis, Nebinger, Pancoast, Phelps, and Stetler voted *not* to rescind.

TRANSACTIONS OF SOCIETIES.

REPORT OF THE PROCEEDINGS OF THE PATHOLOGICAL SOCIETY OF PHILADELPHIA.

AT a stated meeting of the Pathological Society, held June 8, 1871, the President, John Ashhurst, Jr., M.D., in the chair,

DR. DE FORREST WILLARD exhibited specimens of *osteoid cancer* of the general osseous system, from J. C., aged 19 years, whose grandmother and aunt both died of cancer of the breast. The patient's health was perfect until twenty-two months before death, when he received a slight injury of the right foot, the effects of which continued in the form of slight uneasiness, which gradually became a constant pain, and at the end of a year prevented the use of his limb. Six months after the injury, he noted a slight prominence upon the outer face of the tarsus, which increased slowly for a time, but subsequently rapidly enlarged, and on October 1, 1870, was fifteen inches in circumference. At this time, the leg was amputated, by Prof. Agnew, at the junction of the middle and lower third. Three weeks later, the growth recommenced on the outer side of the tubercle of the tibia, and another appeared upon the anterior face of the seventh rib of the left side. Three weeks later, additional nodules appeared on various points of the skeleton, and finally from the end of the stump, which itself enlarged rapidly. He died, exhausted, in April, 1871.

The primary cancer of the foot involved all the bones of the tarsus. The secondary cancer of the stump exceeded three times the normal dimensions of the leg at that point, and extended to the knee. It was dense, hard, and nodulated. Similar masses occupied the first, fifth, seventh, and eleventh ribs, the sacrum, and the temporal bone, while in Scarpa's triangle lay two glands as large as English walnuts, stone-like in hardness. Except these glands, the soft tissues were nowhere involved.

Microscopic examination of the tumor of the tibia by Dr. J. G. Richardson proved the existence of a firm, highly-refractive stroma, within the meshes of which were found, singly and in groups, rounded, oval, and caudate cells, averaging the one-thousandth of an inch in length, and generally containing a large nucleus. Acetic acid dissolved the more highly-refractive portions of the stroma with effervescence. The lymphatic glands exhibited a similar structure.

DR. WILLIAM DARRACH exhibited a *larynx and trachea lined with false membrane*, removed from a child, aged three years, which had died of diphtheria. The child, previously healthy, having taken cold, was found, at the doctor's first visit, with fever, swollen throat, and patches of whitish membrane on its tonsils. It was placed on supporting treatment, but became gradually worse, the respiratory embarrassment increasing until the breathing could be heard in an adjoining room. Its face became purple, but was not anxious in its expression, nor did the nostrils dilate in breathing. The patient died on the third day.

At the post-mortem examination, sixteen hours after death, the larynx and trachea were removed. They were lined by a yellowish-white, adherent membrane, soft, but well formed throughout, and extending even into the smaller bronchial tubes. The other organs were normal, except the right lung, which was congested.

The diagnosis of diphtheria was thought to be the proper one here, associating the incipient symptoms with the facts that an epidemic of diphtheria was prevailing at the time, and that several of the cases were fatal.

BIOLOGICAL AND MICROSCOPICAL SECTION OF THE ACADEMY OF NATURAL SCIENCES.

AT a stated meeting, held June 5, 1871, James Tyson, M.D., in the chair,

DR. J. G. RICHARDSON exhibited several *slides of microscopic objects mounted in a saturated solution of acetate of potash*, as recommended by Max Schultze (see remarks of Dr. James Tyson, *Medical Times*, No. 18, p. 345), and desired further to ask the attention of the Section to this new and valuable preservative menstruum. He stated that according to his experience, confirmatory of that recorded by previous observers, it possessed two great advantages, especially for beginners in microscopy. The first of these consists in this, that after meeting during an ordinary examination with an interesting specimen (such as a group of tube-casts or some well-displayed alveoli filled with cancer-cells in the edge of a thin section from a malignant growth), it is by no means necessary to remove the cover and thus run the risk of losing the object, because a small quantity of the acetate of potash solution, placed at the margin of the thin glass, will readily diffuse itself beneath it, and accomplish the purpose designed. He had found it advisable to apply a drop of the solution at two opposite edges of the cover, so as to obviate any strong currents which might disarrange the specimen; also, to allow it twenty-four hours to penetrate completely before wiping off the excess with a *moistened* cloth. The second additional advantage gained by the employment of this preservative fluid is the absence of any disposition to mingle with the ordinary white zinc cement, preventing the latter from running under the thin cover when applied around its edge. In no case was any tendency observed to such a misfortune, so liable to occur with most preservative liquids, unless cells are employed.

The specimens exhibited comprised one of blood, three weeks old, showing clearly the leucocytes and red blood discs —the latter, although flattened, were not crenated, and retained a large proportion of their coloring-matter; one of tube-casts from the urine of Bright's disease, containing fatty epithelial cells; one of a specimen of croupous (fibro-corpuscular) lymph stained with carmine, containing well-defined leucocytes; one of a thin section from a fibromatous tumor; one of crystals of uric acid, which had been slightly granular when mounted, but showed no further deterioration during the following two weeks.

In reply to a question from Dr. L. S. Bolles, Dr. R. stated that the solution employed was made by simply dissolving an avoirdupois ounce of the dry acetate of potash (as sold by all druggists) in half a fluidounce of river-water, and allowing it to become clear by standing a day or two.

DR. W. S. HALSEY inquired whether this solution would not be apt to react with some of the crystalline urinary deposits in such a way as to interfere with its use in their preservation.

DR. RICHARDSON replied that such would probably be the case in some instances, as on one occasion, when attempting to mount some octahedra of oxalate of lime, he had found their places occupied after twenty-four hours by stellate groups of feathery crystals,—very likely the result of double decomposition; a slide upon the table, however, indicated no such action as regards uric acid, and of course no such danger of chemical reaction is to be apprehended with specimens of animal or vegetable tissues.*

DR. JAMES TYSON exhibited a *section of a tooth showing hypertrophy of the cementum, or exostosis*, which he thought interesting in connection with the discussion which took place at the meeting reported in *The Medical Times*, No. 13, April 1, 1871. At this meeting it was said that, since cementum is not true bone, the term *exostosis* is not the proper one for this hypertrophy. At that time Dr. T. said that he thought the only objection which could be urged against the position he claimed for cementum—that of true bone—was the absence of the Haversian canals. This he considered due to the fact that the quantity of cementum was usually so limited as not to require additional provision for blood-vessels, its most remote points being still sufficiently near the periosteum to be nourished by the capillaries of the latter tissue in connection with the intermediate canaliculi of its own structure. He thought that if the cementum were present in greater quantity, Haversian canals would be furnished. The specimen he now exhibited confirms the view then taken. It presents an abnormal increase of cementum, apparently beyond the power of the periosteum to nourish. Accordingly there are supplied Haversian canals, of which six undoubted transverse sections can be counted, and two or three of more doubtful nature. In two there can be seen an evident approach towards concentric arrangement of the lacunæ, which, although by no means so regular as is that generally met with in bone, is still plainly discernible. In two situations, again, the Haversian canals are evidently vertically cut.

After all, this view is only that which is held by the authorities best conversant with these matters. Thus, in the American edition of Mr. John Tomes' excellent work on Dental Surgery, p. 494, we have the following with regard to cementum:

"The occurrence of vascular canals (Haversian canals) is to a certain extent exceptional, being dependent upon the presence of a larger amount of cementum than is usually found in perfectly healthy teeth. Their presence is, however, not necessarily an indication of disease, for when two contiguous roots are united by the intervention of cementum, a vascular canal will not uncommonly be found to traverse the medium of union."

Cementum is compared by the same author to "primary bone," or bone which has been developed in temporary cartilage, or upon the surface of existing bone, in which also the relation of the Haversian canals to the lacunæ and canaliculi is stated to be less definite, and that the latter are directed with less regard to the position of the contiguous vascular canal; whereas, in "secondary bone," or bone which has been developed to supply the place of pre-existing bone removed by absorption, the lacunæ partake of the concentric disposition, and direct a large portion of their canaliculi towards the Haversian canal.

These facts, taken in connection with the statement made by the same author,† that when the layer of cementum is thin the *lacunæ* also are altogether absent, and even *canaliculi* do not appear until a certain thickness is attained, Dr. T. thought would sufficiently confirm the view taken at the previous meeting.

The specimen was prepared by Prof. E. Wildman, of the Pennsylvania College of Dental Surgery, and belongs to him. The observation was also primarily made by him, his attention having been directed to the subject by the report of the remarks of Dr. T. in the *Medical Times*.

* Although this assertion is, I presume, strictly true, yet the fact that we can rarely obtain animal structures without some portion of their natural fluids (which often contain crystallizable salines) may *practically* require it to be somewhat modified. At all events, I have, since the above was written, observed a very few columnar crystals form around a specimen of encephaloid cancer of the liver, preserved for three weeks in acetate of potash solution.—*Note by Dr. Richardson.*

† Tomes, op. cit., p. 493.

REVIEWS AND BOOK NOTICES.

A TREATISE ON THE CHRONIC INFLAMMATION AND DISPLACEMENTS OF THE UNIMPREGNATED UTERUS. By WILLIAM H. BYFORD, A.M., M.D., Professor of Obstetrics and the Diseases of Women and Children in the Chicago Medical College; Author of the "Practice of Medicine and Surgery applied to the Diseases and Accidents incident to Women," etc. Second Edition, Enlarged, with numerous Illustrations. 8vo, pp. 248. Philadelphia, Lindsay & Blakiston, 1871.

"Sure as eggs is eggs, this here's the bold Turpin," exclaimed the unhappy Bishop, as he recognized the mosstrooper by his reckless dash and swaggering irreverence. So would the reader at once discover the author of this volume, masked though he might be under the slyest of *noms de plume*, by his helter-skelter style and his defiant bearing towards all the ancient and honorable canons of syntax. Language was characterized by Talleyrand as a convenient disguise for one's thoughts: this definition Prof. Byford has accepted with enthusiasm. Many of his sentences are tricked out in cumbersome euphuisms; the meaning of others can only be guessed at; and as for parsing them—well, one might as well attempt to parse the characters on the ruins of Karnak. But never mind, he has a Roland for our Oliver, since even the great Frederick, with all his fame, could not conjugate a verb in *mi*.

Thus much for the attire. And now for the substance: the cowl does not make the monk, and language to the author is not so much a symbol, as a cowl. Six years ago the first edition of this work appeared, and was well received by the profession. It was a good book in its way,—a very good book,—and so is the present edition; but, while the former led the times, the latter lags behind, and does not show that thrifty gleaning which we had hoped for. Until within a very short time the subject of gynæcology was a *terra incognita;* all honor, therefore, to Prof. Byford and to those sturdy pioneers who have explored this land so well. But the time, alas! comes when lusty joints stiffen,—when sinewy limbs grow weary; and the reader will be saddened to find the author still loitering about his last camping-ground and raking out the embers from its ashes, while other men have struck their tents and toiled on, *per aspera et ardua*, far beyond the horizon of his outlook. Slow fire makes sweet malt: in six years much may be learned and much unlearned; yet after the lapse of this time—and a time of progress it has indeed been—the author is still patting the same pet theories lovingly on the back, and, with a big lump in his throat, is bidding them good-speed, as if they were just out of jackets and just going out into the cold world.

Who else, for instance, in this year of grace could warmly advocate so unscientific an instrument as the elastic ring-pessary, or still continue to be the firm partisan of the stem-pessary,—that abomination which has been tried and found wanting? In the treatment of uterine disorders, who but he relies mainly on the nitrate of silver and on the more violent caustics? "It is to be feared," he says, "that the direful effects of the white-hot iron, Vienna paste, potassa fusa, etc., much more common in the imagination of the writers than in fact, have deterred a large body of the profession in America and in Europe from making a temperate use of what is called the caustic treatment, and thus have retarded progress in the management of these cases. Nobody will deny that all these agents can, and in injudicious hands do, produce mischief. This is no argument, of course, against their use in proper cases." At the present day, this sounds like the *ægri somnia vana*,—the wanderings of a sick brain.

We grant him that "the advocates of the local treatment of uterine disease are not to be held responsible for the rashness of the ignorant." Yet it is not the "ignorant" and "injudicious," but gynæcologists of the first rank, who have pronounced against this "caustic treatment" as a treacherous one,—as one which in even their skilled hands has caused more mischief than good. Pray, what better remedies are there than the ethereal and alcoholic solutions of iodine, carbolic acid, the various glyceroles, tents, and injections of hot and medicated water? On these and on other points of treatment

we cannot agree. On the use of mercury in uterine hypertrophy we are quite sure that the author and Dr. J. Hughes Bennett could not possibly maintain even an armed neutrality. We owe him, however, a debt of gratitude for the introduction of tents made of slippery-elm bark, which bid fair to prove safe and very efficient agents in enlarging or straightening out the cervical canal.

The chapters treating of the constitutional and sympathetic disturbances arising from uterine disorders are marked by great originality of observation and by sterling good sense. Almost all the moral and mental derangements of the sex are referred by him to the uterus. Here, in his opinion, is the source of all these perturbations: the brain he acquits of any causality in their production. This seems rough on the uterus, and looks much like a sop thrown to *Cerebrum*,—as Mrs. Partington might say. Yet there is nevertheless a world of truth in it. On this fallow ground the author has worked to his credit, and to much purpose.

Our exceptions to a few of the teachings of this book have been taken in no unfriendly spirit. Prof. Byford is an earnest worker,—a representative man; and we might go farther and fare worse in search of a better guide,—a more conservative one certainly could not be found. One serious fault characterizes and underlies all his writings: he is too self-reliant to consult and utilize the work done by fellow-laborers, and his books therefore communicate the crotchets of an individual rather than the collated experience of the master-workmen of the profession. Genius is truly "the birth-hour gift," but it would be well for Prof. Byford to reflect that possibly others besides himself may have received it.

BODY AND MIND: An Inquiry into their Connection and Mutual Influence, specially in Reference to Mental Disorders, etc. By HENRY MAUDSLEY, M.D. London, 1870.

MECHANISM IN THOUGHT AND MORALS. An Address delivered before the Phi Beta Kappa Society of Harvard University, June 29, 1870. By OLIVER W. HOLMES, M.D. 12mo, pp. 101. James R. Osgood & Co., Boston, 1871.

Dr. Maudsley could hardly write a book of indifferent merit, and even this, though the greater part of it is but a repetition in brief of what he has already said in his larger work, is well worth the reader's attention. The general doctrine is well presented, the illustrations are happily chosen, and a strain of active, vigorous thought pervades the whole book. The psychological student cannot be too strongly impressed with the fundamental principle of his philosophy, that mental manifestations must be observed wherever they appear, whether in sickness or health, in man or the lower animals. With many eminent writers of the present time in this department of science, he believes that the individual is not an aggregate of two different things, body and mind, but a simple, indivisible unit, in which there is no essential distinction between the functions of the mind and those of the body. He believes that the popular notion of a mysterious entity or principle operating through the brain, as the musician plays upon his instrument, has greatly obstructed the progress of psychological science, because, this principle being considered the exclusive possession of man, inquiry has been confined chiefly to him, and chiefly to the facts presented by self-consciousness. He shows that some of the functions of the spinal cord and of the sensory ganglia are as clearly mental as those of the brain. Indeed, this fact, as admirably displayed in the insect tribe, nobody thinks of disputing. Many worthy people are greatly alarmed by this kind of doctrine, for to them it seems to make man no better than a beast. But it really does not in the slightest degree affect the question of a future existence. It merely widens the field of secondary causes, and places the great primary cause a little farther off. Within our own day and generation, the vital processes were supposed to be governed by a spiritual entity which we call Life, and it endangered a man's professional prospects to deny it. Dr. Barclay, of Edinburgh, a man of some eminence in his day, wrote a large book to prove it, and Abernethy made a furious onslaught on Lawrence because he spoke disrespectfully of it. Who believes the doctrine now? It would mark a scarcely greater revolution of opinion if the doctrine of a self-existent, independent entity called Mind should share the same fate.

The volume also contains a couple of essays, one of which, on the Limits of Philosophical Inquiry, is a very sensible reply to a lecture read by the Archbishop of York, in which he charged scientific men with pursuing their inquiries beyond their appropriate province, and becoming abettors of atheism. The lecture presented the current objections to natural science entertained by the average educated English mind, and afforded the doctor an opportunity to show, as he has done very clearly, how futile they are.

Dr. Holmes' psychology has been learned in the same school as Maudsley's; and we are glad that this scholarly address, which delighted the savans and literati of Cambridge and Boston, has been published in a permanent shape. His purpose is to regard thought from its physical side,—to penetrate, if possible, into the organic movements by which it is controlled and manifested. He unfolds and illustrates the doctrine of Leibnitz, that much of our thought is unconscious, and of the nature of an automatic operation. This "unconscious cerebration," as it has been termed, he describes and illustrates in a variety of instances, with that remarkable quaintness of thought and felicity of expression which have made his books such delightful reading to every class of minds. We are sure that mental philosophy has never been taught in so attractive a form, nor in a manner more likely to impress its truths on the mind. By a homely but happy illustration, the doctor throws more light on a mental phenomenon than it would have received from a whole chapter after the manner of the old metaphysicians. What better idea can one obtain of "the automatic flow of thought" than is conveyed by the story of the two Irishwomen freeing their minds at each other from the windows of opposite chambers? Who will ever forget the comparison of a dilatory effort of memory to the "delivery of a prepaid bundle, laid at the door of consciousness like a foundling in a basket," or that of his mathematical friend's delayed reply to a question "with half a dozen others stratified over it, to the thawing out of the frozen words as told of by Baron Munchausen and Rabelais"? The charge of materialism the doctor meets by carrying the war into Africa, and showing that they are the true materialists who believe in election and predestination. But no "notice" can do justice to the little book, and therefore we advise our readers to buy it and judge for themselves.

ATLAS OF OPHTHALMOSCOPY, Representing the Normal and Pathological Conditions of the Fundus Oculi, as seen with the Ophthalmoscope. Composed of Twelve Chromo-Lithographic Plates, containing Fifty-nine Figures, Drawn from Nature, and accompanied by an Explanatory Text. By DR. R. LIEBREICH. The Text translated by H. ROSBOROUGH SWANZY. Second Edition, Enlarged and Revised. John Churchill & Sons, London, 1870.

The first edition of this Atlas was issued in January of 1863, and it may be said to have been the pioneer of Ophthalmoscopy, as all the previous plates on this subject had been very imperfectly made, and circulated to a very limited extent. This Atlas seemed exactly suited to meet a want until that time never sufficiently provided for. Its author appears to be peculiarly fitted for the work. As an assistant of Professor Helmholtz at the time he invented the ophthalmoscope (at Königsberg, in the year 1851), he had the privilege of studying the instrument, in its theory, with the inventor himself; and soon afterwards the clinic of Professor Graefe gave him abundant opportunity to determine the practical value of the instrument. The great majority of the drawings found in the Atlas are representations of disease observed at this clinic. In order to insure the lithographs being fac-similes of the original drawings, he personally assisted in the execution of the lithographic plates; and, as the drawings were very accurate delineations of disease, the result has been an admirably perfect production.

The first edition of the Atlas (January, 1863) was exhausted long before the issue of the second, but the time required for the preparation of the new drawings, which have been added to the last edition, accounts for the delay in its issue. In these new drawings are found illustrations of "Choroiditis Disseminata," "Recent Retinitis Hemorrhagica," "Neuritis Optici," "Partial Atrophy of the Optic Disc,—secondary to Retro-ocular Affections of this Nerve,"—"Atrophy of the Papilla,—secondary to Retinitis;" and, as it was not desira-

ble to increase the size of the work (on account of the price), room has been made for these new illustrations by omitting some less instructive drawings found in the first edition. In its present form the Atlas has twelve plates, containing fifty-nine illustrations.

By those only who have been engaged in a similar work can the labor involved in the preparation of such an atlas be justly appreciated. When one considers the length of time required to become even moderately proficient in the use of the ophthalmoscope,—when one considers that, in addition to this, the manual dexterity to copy accurately what is seen is also necessary, and how much time and trouble will be required in the preparation of sufficiently accurate lithographic plates to transfer these drawings to paper,—if all these be considered, then some idea of the amount of labor involved in the preparation of such an atlas as this may be obtained.

Taken as a whole, this edition of the Atlas contains much to praise and very little to find fault with; and to any one desiring such a work it may be most thoroughly recommended, and, at the very reasonable price asked for it, a large circulation may be predicted.

BOOKS AND PAMPHLETS RECEIVED.

The Eye in Health and Disease; being a Series of Articles on the Anatomy and Physiology of the Human Eye, and its Surgical and Medical Treatment. By B. Joy Jeffries, A.M., M.D., etc. 8vo, pp. 112. Boston, Alexander Moore, 1871.

The Modern Operation for Cataract. A Lecture delivered at the Harvard Medical School. By Haskel Derby, M.D., University Lecturer on Ophthalmology. Pamphlet, pp. 23. Boston, 1871.

Can Maternal Mental Emotion produce Malformations? By G. J. Fisher, M.D. Pamphlet, pp. 57.

Thirteenth Annual Announcement of the Chicago Medical College.

Annual Announcement of the Medical Department of the University of Buffalo.

GLEANINGS FROM OUR EXCHANGES.

An Experimental Inquiry into the Constitution of Blood and the Nutrition of Muscular Tissue.—Dr. William Marcet (*Nature*, May 18) announces the following as the results obtained from the inquiry which forms the subject of a paper read before the Royal Society, May 11.

1. That "blood is strictly a colloid fluid."

2. "That although blood be strictly a colloid, it contains invariably a small proportion of diffusible constituents, amounting to nearly 7.3 grammes in 1000 of blood, and 9.25 grammes in an equal volume of serum, these proportions diffusing out of blood in twenty-four hours."

3. "That the proportion of chlorine contained in blood has a remarkable degree of fixity, and may be considered as amounting to three parts (the correct mean being 3.06) in 1000."

4. "That blood contains phosphoric anhydride and iron in a perfect colloid state, or quite undiffusible when submitted to dialysis, the relative proportions appearing to vary from 78.61 per cent. of peroxide of iron and 29.39 of phosphoric anhydride to 76.2 and 23.8 respectively, the proportion of phosphoric anhydride having a tendency to be rather higher."

5. "That blood contains more phosphoric anhydride and potash, bulk for bulk, than serum."

6. "That a mixture of colloid phosphoric anhydride and potash can be prepared artificially by dialysis, and that the colloid mass thus obtained appears to retain the characters of the neutral tribasic phosphate from which it originates; it exhibits an alkaline reaction, yields a yellow precipitate with nitrate of silver, and after complete precipitation the reaction is acid."

7. "That by dialyzing certain proportions of phosphate of sodium and chloride of potassium, during a certain time, proportions of phosphoric anhydride, potash, chlorine, and soda are obtained in the colloid fluid very similar to the proportions these same substances bear to each other in serum after twenty-four hours' dialysis."

8. "That muscular tissue is formed of three different classes of substances: the first including those substances which constitute the tissue proper, or the portion of flesh insoluble in the preparation of the aqueous extract, and consisting of albumen and phosphoric anhydride with varying proportions of potash and magnesia; the second class including the same substances as are found in the tissue proper, and in the same proportions relatively to the albumen present in that class, but existing in solution and in the colloid state; the third class including the same substances as are found in the two others, and, moreover, a small quantity of chlorine and soda, which, although relatively minute, is never absent. The constituents of this class are crystalloid, and consequently diffusible, the phosphoric anhydride and potash being present precisely in the proportion required to form a neutral tribasic phosphate, or a pyrophosphate, as the formula $2KOPO_5$ can equally be $2KOHOPO_5$."

9. "That flesh contains in store a supply of nourishment equal to about one-third more than its requirements for immediate use, this being apparently a provision of nature to allow of muscular exercise during prolonged fasting."

10. "That the numbers representing the excess of phosphoric anhydride and potash in blood over the proportion of these substances in an equal volume of serum, in the regular normal nutrition of herbivorous animals, appear to bear to each other nearly the same relation as that which exists between the phosphoric anhydride and potash on their way out of muscular tissue."

11. "That vegetables used as food for man and animals, such as flour, potatoes, and rice, transform phosphoric anhydride and potash from the crystalloid or diffusible into the colloid or undiffusible state; and it is only after having been thus prepared that these substances appear to be fit to become normal constituents of blood and contribute to the nutrition of flesh."

"A final remark, and one which is worth consideration, is the fact established by the whole of the present investigation, that there is a constant change or rotation in nature from crystalloids to colloids, and from colloids to crystalloids."

Leukæmia — Slight Splenic Enlargement — Hyperplastic Growth of the Medulla of the Bones.—Prof. Waldeyer reports the following interesting case in *Virchow's Archives*, March, 1871:

The patient was received in the hospital on account of an anchylosis of the elbow and knee-joint of fifteen years' duration. He stated that during the last few days severe hemorrhage had taken place from two fistulous openings near the knee-joint, on account of which, and of the long-continued suppuration, amputation of the joint was deemed advisable. Death, with well-marked symptoms of pyæmia, followed on the twelfth day after the operation. The marked paleness and cachexia of the patient during life gave rise to the suspicion of leukæmia. The blood was therefore examined with the microscope, and an enormous increase of the white blood-corpuscles was discovered. A slight but decided increase in the area of percussion dulness over the spleen was also recognized.

A detailed post-mortem report follows, from which we extract the following:

The femur and tibia were divided longitudinally, and it was found that the bone-structure, which had almost disappeared, had been replaced by a soft—in places almost gelatinous—tissue, which was in general of a dark grayish-red color, closely resembling the splenic pulp, here and there, however, of a yellowish hue, like adipose tissue. The tibia was enlarged, the external lamella only five millimetres in thickness, and exceedingly hard. A layer of the same character was found limiting the medullary cavity of the bone, so that it appeared as if two thin, bony, concentric tubes had been placed the one inside the other, the intervening spaces being filled with the rapidly-proliferating medullary tissue. In many

places the external lamella had been perforated, and had therefore acquired a cribriform appearance. From these openings small fungous growths of medullary tissue projected. The cavity of the knee-joint was completely filled with a new growth resembling adipose tissue. The cartilages had also been perforated, and the proliferating medulla of the bones projected into the cavity of the knee-joint and became continuous with the growth just described. The spleen was the seat of numerous old infarcti, and also of new hyperplastic formations. The tonsils and lymphatic follicles of the tongue were enlarged, and in places projected like polypoid growths.

Microscopically the medulla consisted of round lymphoid cells, myeloplacques, and here and there the yellow nucleated bodies of a high refractive power, described by Neumann. In the spleen, the Malpighian bodies were found to be hypertrophied, consisting of lymphatic cells so closely packed that a reticulum could with difficulty be discovered. Numerous small lymphomatous growths were also found in the liver.

Waldeyer remarks that undoubtedly a chronic inflammatory disease of the joints had existed for some time, ending in caries. Associated with this process, however, we recognize another condition, which has been termed eccentric atrophy, and the interesting question arises, Was this the *cause* or the *effect* of the inflammation? Waldeyer is inclined to regard it as the primary lesion, the disease of the joint being caused by the hyperplastic medullary growth penetrating the cavity, destroying the cartilage, and thereby producing a condition in which the slightest external injury would result in a destructive inflammatory process. The changes which occurred in the medulla are not, according to Waldeyer, to be considered as inflammatory in character,—are not the same as those which take place in osteo-malacia,—but consist in a simple hyperplastic growth of the medulla, which Neumann has already shown often takes place in chronic diseases, leading to general marasmus. An analogy is then drawn between this condition and the hyperplastic changes which occur in the spleen and lymphatic glands, with which we are familiar through the labors of Virchow.

Again, the changes in the bones in this case undoubtedly date farther back than the moderate enlargement of the spleen, which alone is not sufficient to explain the excessive increase in the white corpuscles of the blood: hence Waldeyer does not hesitate to bring the hyperplastic condition of the medulla of the bones in a generic relation to the leukæmia, and to declare that if not the *principal* it is at least an *equal* factor in the production of this disease. This case, therefore, confirms the observations which Neumann has made as regards the relation between the medulla of the bones and the white blood-corpuscles, which under abnormal conditions of hyperplastic growth may result in the production of leukæmia.

STRUCTURE AND FUNCTION OF THE MUCUS-GLANDS OF THE STOMACH.—This title is applied to a résumé of some recent observations of M. Ebstein, principally upon dogs, in *The Academy* for April 15, 1871, taken from the sixth number of the *Centralblatt* for 1871:

The mucus-glands are found chiefly in the pyloric region, where they replace the true peptic gastric glands. The pyloric region is of paler tint than the rest of the stomach, and gives an acid reaction to test-paper, though not quite so intense as in other parts. The epithelium lining the interior of the stomach and the pits or alveoli is cylindrical, the cells being usually closed; but sometimes, especially during digestion, they burst, the mucous contents then escaping. At their bases are smaller cells, which at first resemble lymph corpuscles, but gradually develop into the columnar cells, and are particularly distinct in preparations made with pirosmic acid, by which reagent they are less strongly tinted than the ordinary cells. Into the bottom of the alveoli of the pyloric region, two, three, or more mucus-glands open. These present an orifice, a neck, and a clavate extremity. Their interior is lined by a layer of columnar epithelial cells, the nuclei of which are near their attached extremities. The cells are shorter, darker, and more granular than those of the surface of the stomach generally, and there are no "supply" or secondary cells at their bases. They resemble the cells lining the peptic glands, which have been described by Heidenham as "principal cells" (*Hauptzellen*), not only in the points mentioned above, but in their microchemical reactions and the changes they undergo during digestion. From all this it appears that the statements made in the physiological works, to the effect that there are two kinds of glands, one destined to supply the gastric juice, the other to yield the mucous fluid of the stomach, are not borne out by the results of microscopic research. It would rather appear that all the glands of the stomach are lined by an epithelium which secretes gastric juice, while the general surface of the stomach is invested by an epithelium capable of producing the mucus.

[We have abstracted this résumé with no practical alteration, on account of the acknowledged importance of the subject, though there seem to be some inconsistent statements in it. Thus, the title contains the words "mucus-glands," and, again, it is stated that the *mucus-glands* are found in the pyloric end of the stomach, where they replace the *peptic glanas;* yet only one kind of gland is described, which turns out not to be a mucus- but a peptic gland; and, finally, it is stated that there is really a single form of gland, which is the peptic, and that the mucus is produced by the surface epithelium throughout the organ. There is reason for admitting this, but its final admission is quite inconsistent with the early statement that the mucus-glands are found chiefly in the pyloric region. The original paper is not accessible to us.—ED.]

CAST OF THE FEMALE BLADDER.—At the meeting of the Southeastern Branch of the British Medical Association (*Brit. Med. Jour.*), May 10, Dr. Wardell exhibited an extraordinary pathological specimen, consisting of what seemed to be the exuviation of the entire mucous membrane of the urinary bladder, in a woman aged 28, admitted into the infirmary. The mass was absolutely seen by the house-surgeon to pass out of the bladder. Dr. Waddell observed that he had referred to several works on pathology, but could find nothing resembling the case from which the specimen was derived. He regarded the product as a croupous plastic exudation.

TREATMENT OF STRICTURE OF URETHRA.—Mr. W. F. Teevan (*British Medical Journal*, May 13, 1871, p. 501), in the course of his adverse comments upon the forcible dilatation of urethral stricture, says, "All statistics published are nearly useless, as they omit to state what was the condition of the urethra immediately before the operation and three years afterwards." Forcible rupture, according to this writer, turns an organic stricture into a traumatic lesion, tending to contraction, necessitating subsequent treatment by continuous dilatation.

MISCELLANY.

PHYSICIANS IN THE UNITED STATES.—We take the following facts from the Philadelphia *Press:*

"The total number of physicians who paid taxes to the Government for the year ending April 30, 1871, was 49,798. Of these there were—regular, 39,070; homœopathic, 2961; hydropathic, 133; eclectic, 2860; miscellaneous or not classified, 4770. These figures show that the number engaged in the profession has been over-estimated. The usual guess at the number of homœopaths has been 10,000. It is believed that the Government list is very full and accurate."

It is said that the Internal Revenue Department has prepared a list giving the name and post-office address of every one of the 49,798 physicians.

A SATURATED SOLUTION OF ACETATE OF POTASSA FOR MICROSCOPICAL PURPOSES.—Dr. William M. Herron, of Alleghany, writes us that this may be obtained in the following simple way:

"Expose the salt in a wide-mouthed bottle to the steam coming out of the spout of a tea-kettle for a few minutes. Pour the solution thus formed into another bottle, and expose again till all is dissolved."

METEOROLOGICAL.—The mean temperature of the month of June just past was 74.51° F. The average of means for the same month during the past eighty years is 71.73° F. The highest mean on record for June is 77.35° F., in 1870; the lowest is 64° F., in 1816. The highest temperature indicated by the thermometer during the month was 90.50° F., on the 7th; the lowest was 60° F., on the 30th.

The rain-fall during the month was 3.773 inches; the average rain-fall of June during the past thirty-four years is 4.10 inches.

THE PROCEEDINGS OF THE AMERICAN MEDICAL ASSOCIATION.—Dr. William B. Atkinson, the Secretary of the Association, intends to issue a pamphlet edition of the minutes of the late meeting, at twenty-five cents per copy.

MEDICAL APPOINTMENTS.—Dr. Broadbent, Dr. Meadows, and Mr. James Lane have been elected to fill the vacancies caused in the Senior Staff of St. Mary's Hospital by the retirement of Dr. Sibson, Dr. Tyler Smith, and Mr. Samuel Lane, in accordance with the laws of the institution, at the end of their twenty years' term of office.

Dr. Murchison, F.R.S., has been recommended by the Grand Committee for election by the Governors as Physician to St. Thomas' Hospital, Mr. Croft for election as Surgeon, Dr. John Harley and Dr. Frank Payne as Assistant-Physicians, and Mr. Francis Mason and Mr. Henry Arnott as Assistant-Surgeons. The *British Medical Journal*, in commenting upon these nominations, says,

"St. Thomas' Hospital is, we cannot but think, peculiarly fortunate in having the opportunity of acquiring at one stroke so many elements of intellectual strength as it has gained by the addition to its staff of Murchison, Harley, Payne, MacCormac, Liebreich, in the liberality and judgment shown in the elections, and in the just promotion and wider scope of exertion which it has now offered to the able staff who have long enabled it to hold a proud place among metropolitan institutions and to do honor to its traditional reputation."

FEMALE DOCTORS IN FINLAND.—Women may hereafter study medicine at the University of Helsingfors, the Emperor of all the Russias having intimated his assent to the expressed wishes of his Majesty's Finnish subjects.

IMPROPER ADVERTISEMENT.—As long as the right is granted to any one, no matter how ignorant, to patent and to vend a compound of his own mixing, we may expect to have the daily papers filled with advertisements of quack medicines. There is a class of such advertisements, however, which we submit that no editor who has any respect for himself or for his calling should accept. One of this class, taken from a Vicksburg newspaper, was sent to us a few days ago. It is headed, in large letters, "To the Ladies! Dr. Pancoast's Female Pills; a Positive Cure for Suppression or Irregularity arising from any Cause whatever." This is followed by a letter dated Philadelphia, February 6, 1871, and purporting to be written by R. M. Levis, M.D., who is asserted in the advertisement to be a well-known physician, but can scarcely be possessed of much skill in diagnosis, for he says that he gave these pills to a pregnant woman, not having discovered her condition, with the effect of bringing on an abortion. Although he says that none of the usual signs of pregnancy were present, we think that there can be but little doubt that the ladies (?) are expected to see in the power which the pills possess to produce a miscarriage one of their principal recommendations.

In looking over the city directory for this and last year, we cannot find the name either of R. M. Levis or of J. Walker Pancoast,—for the address of the advertiser of the pills is Philadelphia,—and therefore doubt the existence of any such persons. May it not be that these names are assumed for the purpose of deluding the unwary into the belief that they belong to well-known physicians of this city?

COMMENDABLE CONDUCT OF FRENCH PHYSICIANS.—We find in the *London Lancet*, which in its turn quotes from *L'International*, of London, a statement that the attempt to destroy the Cathedral of Notre-Dame by fire was frustrated by the courage and perseverance of the house-physicians and house-surgeons of the Hôtel-Dieu. These young and meritorious members of our profession obtained by their resolution and firmness the assistance of a number of persons, and succeeded in extinguishing the fire, which would in all probability have extended to the Hôtel-Dieu, and would have been the cause of a frightful loss of life.

PROF. KARSTEN AND THE BOYS.—We learn from a letter to the *British Medical Journal*, that Prof. Karsten, the learned Viennese Professor of Botany, has become involved in a somewhat peculiar difficulty. It appears that of one hundred and six candidates who were marked *valde bene* by the other professors of the University, one hundred and two were rejected by the Professor of Botany. This seems to have rendered the students desperate, and on the 3d of May the gentlemen were prepared to give the professor a warm reception. Whether he had been forewarned or not, does not appear, but he sent his assistant to begin the lecture; whereupon the indignant class went to his private room, where he was engaged, and attempted to administer castigation; and but for the timely interference of the other members of the faculty, who hurried the stringent professor to his carriage, the latter would have been roughly handled. As it was, it is stated that he did not escape without blows. After the disturbance, Prof. Karsten applied at the police-station at Alsergrund for permission to carry arms, so that, provided with a revolver and a sword-cane, he should be in a condition to meet the "barbarous horde," who might insult him at his next lecture. He also demanded that two hundred policemen should be placed at his disposal for the apprehension of the students in case they should offer further insult. The request was not granted, as the commissary of police thought that the amount of mischief which might arise could not be calculated. Prof. Karsten then said he wished to be permitted to carry arms for self-protection in his botanical excursions, a request which was again declined until the commissary should consult the director. The latter also refused Prof. Karsten's request, and desired him to avoid the scene of strife until the government had considered the subject. A similar suggestion reached the professor from the Consistorium of the University and the Dean of the Faculty of Medicine. If such is the treatment of the rigid examiner in Germany, a country the cultivation of whose students is acknowledged by the world, we tremble to think of the risks he would run among American students of medicine.

A NEW WAY TO SWINDLE.—A German woman, living in this city, was recently swindled out of forty dollars by a fellow named Fergus, who, pretending to be a physician from Germany, promised to cure her sick child by a charm which he called "Nervous Sympathy." "Don't be drugging your

child with your infernal allopathic stuff, but leave the child to me, and I warrant it will be on its legs in short order." The mother giving her consent, the child was submitted to the "Nervous Sympathy" practice, which is thus described in the *Evening Telegraph:*

"Fergus commenced operations by drawing from his pocket a small vial, the contents of which he tasted himself, and then gave some to the infant. He then asked for a two-dollar bill. This was produced. He laid it upon the table, sprinkled it with the mysterious liquid, folded it up, and handed it back again to the mother. All this time he was muttering and mumbling like a lunatic."

After this he went away, promising to return in half an hour. Faithful to his promise, he reappeared, and recommenced his nervous-sympathy operation, during which he managed to discover that the woman had forty dollars in greenbacks in the house. This she was desired to produce. The money was of course sprinkled with the contents of the little bottle, and, the mother being sent up-stairs to sprinkle the child, was carried off by the conjurer.

It will be satisfactory to our readers to know that the sharper is now safely lodged in the county jail.

INFIRMARY OR HOSPITAL?—A singularly common error is pointed out in the use of the terms *infirmary* and *hospital*, by the editor of the *British Medical Journal* (May 27, 1871), which is, however, mainly confined to England and this country. A *hospital* is defined as a place for shelter or entertainment, for the exercise of "hospitality," while an *infirmary* is a place for the reception of the sick. The error is traceable in London to St. Bartholomew's and St. Thomas', which were founded as priories, afterwards became hospitals, and have now become infirmaries, though still called hospitals. They might with equal propriety be called priories. In Scotland and Ireland, however, the term infirmary is correctly used. Thus, there is the Edinburgh Royal Infirmary, with 565 beds; the Glasgow Royal Infirmary, 547 beds; Aberdeen Royal Infirmary, 300 beds. The same journal suggests the change of name of St. Thomas' to that of "The Victoria Infirmary." Would it not be well for Philadelphians to remember this correct application of the terms in naming the new infirmaries proposed, as "The Infirmary of the Presbyterian Church," and "The University Infirmary," or "The Infirmary of the University of Pennsylvania"?

HUMORS OF VACCINATION.—Mr. R. Ellis, a surgeon, has invented a new method of vaccinating, and has written to the *London Times* that it never fails. He first of all makes one or two little vesicles with cantharides, and the next day applies the virus to the surface thus denuded of cuticle. A Mr. John Smith, M.R.C.S., in a letter to the *Medical Times and Gazette*, shows that this new method cannot be universally adopted, simply because the occupations of the poor prevent their frequent attendance upon dispensaries. It is extremely difficult to get them to come twice for the vaccination and inspection; and the necessity for an additional visit to be devoted to the preliminary vesication would still further increase this difficulty. "Would that Mr. Ellis," Mr. S. says, "had to look up an Irish 'widdy,' who, when upbraided with not coming on the eighth day, replied that she would not give up a day's 'choring' and let her children's bellies go empty for all the doctors this side of h——,'—a place which Pope's soft Dean would not mention to ears polite."

We find, also, the following, extracted from the Annual Report of the Trustees of the National Portrait-Gallery, in the *Medical Times and Gazette:*

"Dr. Jenner, although placed very high and in an unfavorable light, did not escape frequent observation. A woman, pointing to it, said to her girls, 'There's the one that's making such a lot of children suffer now from vaccination.'"

MORTALITY OF PHILADELPHIA.—The following reports are condensed from the records at the Health Office:

	For the week ending June 24.	July 1.
Consumption	40	35
Other Diseases of Respiratory Organs	24	11
Diseases of Organs of Circulation	10	14
Diseases of Brain and Nervous System	42	55
Diseases of Abdominal Organs	71	82
Zymotic Diseases	28	22
Debility	30	23
Marasmus	20	20
Cancer	4	7
Syphilis	1	0
Scrofula	2	0
Tetanus	0	2
Tumors	2	0
Old Age	4	6
Stillborn	10	25
Malformation	4	0
Casualties	6	8
Sunstroke	0	1
Intemperance	3	0
Unclassifiable	19	13
Unknown	1	5
Totals	321	329
Adults	145	123
Minors	176	206

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM JUNE 19, 1871, TO JULY 3, 1871, INCLUSIVE.

WEBSTER, WARREN, SURGEON.—By S. O. 129, Headquarters Department of the East, June 20, 1871, assigned to duty as Post-Surgeon at Fort Independence, Mass.

BYRNE, C. C., SURGEON.—By S. O. 129, C. S., Department of the East, assigned to duty as Post-Surgeon at Willet's Point, N.Y. Harbor.

STERNBERG, G. M., ASSISTANT-SURGEON.—By S. O. 129, C.S., Department of the East, assigned to duty as Post-Surgeon at Fort Warren, Mass.

WINNE, C. K., ASSISTANT-SURGEON.—By S. O. 240, A. G. O., June 19, 1871, leave of absence extended 60 days.

JANEWAY, J. H., ASSISTANT-SURGEON.—By S. O. 129, C.S., Department of the East, when relieved by Surgeon Byrne, to comply with order of the War Department in his case.

HAPPERSETT, J. C. G., ASSISTANT-SURGEON.—By S. O. 129, C.S., Department of the East, when relieved by Assistant-Surgeon Gardner, to comply with order from the War Department in his case.

GARDNER, W. H., ASSISTANT-SURGEON.—By S. O. 129, C.S., Department of the East, assigned to duty as Post-Surgeon at Fort Washington, Md.

POPE, B. F., ASSISTANT-SURGEON.—By S. O. 237, War Department, A. G. O., June 17, 1871, par. 30 of S. O. 385, A. G. O., Dec. 31, 1870, honorably discharging him, is revoked.

HALL, JOHN D., ASSISTANT-SURGEON.—By S. O. 247, War Department, A.G.O., June 23, 1871, relieved from duty in Department of Arizona, and ordered to report to Commanding General Department of Dakota for assignment to duty.

GUNN, G. H., ASSISTANT-SURGEON.—Died at Fort Quitman, Texas, May 29, 1871.

MICHLER, W. H. H., ASSISTANT-SURGEON.—By G. C. M. Orders, No. 10, War Department, A. G. O., June 19, 1871, cashiered.